

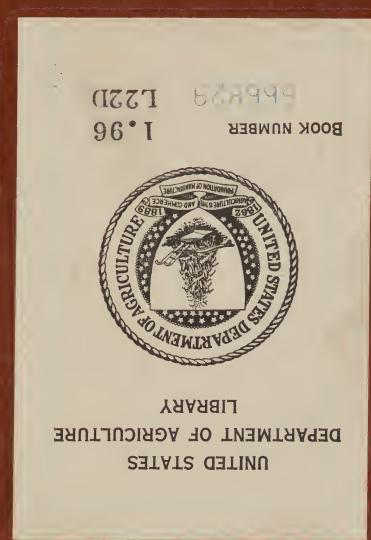
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scientific knowledge, policies, or practices**

1.96
L22D

DESCHUTES IRRIGATION PROJECT, OREGON

Classes of Land According to Use
Capability, Irrigation Presumed
Feasible.



OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

SUITABLE FOR OCCASIONAL
CULTIVATION

NOT SUITABLE FOR CULTIVATION

NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE

I-Nearly level, deep, permeable soils having no special limitations in use.

II-Nearly level, moderately deep, permeable soils having minor limitations in use.

III-Moderately deep soils with stone, slope or texture limitations.

IV-Shallow, droughty or moderately sloping soils limited to pasture use.

V-Sloping, very stony lands suited for range, having minor conservation needs.

VI-Steep, very stony lands suited for range, having major conservation needs.

VII-Very steep, stony or droughty lands; essentially non-productive.

DESCHUTES IRRIGATION PROJECT

Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

27QR

21-Sand loam, Madras sandy loam, C-Silty, 8 percent to 12 percent
2-Shallow erosion; 26-Erosion to 75 percent loose; R-Wind erosion, 25 percent to 75 percent removed by wind.

SOILS

LIGHT AND COARSE TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIAL

- 2-Deschutes sandy loam, shallow phase
- 3-Deschutes sandy loam
- 43-Era sandy loam
- 13-Deschutes loamy sand
- 4-Deschutes loamy loam, deep phase
- 5-Crescent loamy sandy loam
- 19-Deschutes loamy loam
- S43-Era silty sandy loam

LIGHT AND MEDIUM TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER MODERATELY CONSOLIDATED MATERIAL

- 31-Madras sandy loam, shallow phase
- 10-Deschutes sandy loam, shallow phase
- 17-Madras loamy loam, deep phase
- 12c-Deschutes loamy loam, deep phase
- 15-Madras silty loamy loam
- 13c-Deschutes silty loamy loam
- 20-Deschutes loamy loam
- 26-Deschutes loamy sand
- 9c-Deschutes loamy sand
- 14-Deschutes loamy sand

EROSION

SHEET EROSION

- 1-Less than 25 percent of the surface soil lost
- 2-25 percent to 75 percent of the surface soil lost
- 3-75 percent to 100 percent of the surface soil lost, up to 25 percent of the 0 horizon lost
- 4-25 percent to 50 percent of the 0 horizon lost

GULLY EROSION

- 2-Gullies shallow gullies
- 21-Gullies gullies unsuitable to farm machinery
- 8-Shallow gullies less than 100 feet apart laterally or more than 3 feet deep
- (6)-Uncrossable gullies less than 100 feet apart laterally or more than 3 percent

WIND EROSION

- P-Up to 25 percent of surface soil removed
- R-25 percent to 75 percent of surface soil removed
- S-75 percent to 100 percent of surface soil removed

WIND DEPOSITS

- F-Accumulations 1/2 inch to 6 inches deep, level
- H-Accumulations 6 inches to 12 inches deep, hummocky
- K-Accumulations 1/2 inch to 12 inches deep, hummocky
- L-Accumulations too narrow to include within boundaries

MISCELLANEOUS

- W-Normal erosion
- O-No accelerated erosion
- E-Undifferentiated erosion (land used, urban areas)

LIGHT TO HEAVY TEXTURED SOIL WITH MODERATELY HEAVY TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIALS

- 35-Agency sandy loam
- 37-Agency gravelly loam
- 70-Cam loam
- 76-Agency loam
- 63-Agency stony loam
- 71-Gam clay loam
- 73-Gam clay loam, shallow phase

LIGHT TO HEAVY TEXTURED SOILS WITH HEAVY TEXTURED SUBSOILS OVER LIME HARDPAN

- 39-Madras loam
- 40-Madras clay loam
- 48-Madras clay loam
- 89-Madras clay loam

LIGHT TEXTURED SOIL WITH DEEP, LIGHT TEXTURED SUBSOIL OVER PERMEABLE MATERIALS

- 31-Lemont loamy silty loam
- 32-Lemont loamy silty clay loam
- 33-Lemont loamy loam
- 34-Lemont loamy clay loam, shallow phase
- 84-Lemont loam, shallow phase

LIGHT TO HEAVY TEXTURED SOIL WITH HEAVY TEXTURED SUBSOILS MODERATELY CONSOLIDATED MATERIALS

- 74-Redmond loam
- 75-Redmond sandy loam
- 75d-Redmond sandy loam, deep phase
- 76-Redmond clay loam

MISCELLANEOUS

- 100-Hough winter land
- 200-Hough spring land
- Rw-Riverbank
- 91-Volcanic ash
- T-Soilline

LAND USE

Reproduced in gray

Cultivated land, annual and perennial crops such as grain, hay, crops, alfalfa, cover and grasses



Rangeland - Land formerly cultivated but now planted to annual grasses, crested wheat grasses, or brome



Rangeland - Annual or perennial grasses or forbs



Woodland - Pines or Pinus ponderosa



Timber



Perennial and other crops



SLOPE

	DOMINANT PERCENT		DOMINANT PERCENT
A	0 to 3	D	13 to 20
B	4 to 7	E	21 to 35
C	8 to 12	F	36 and over

GEOGRAPHIC SYMBOLS

WORKS AND STRUCTURES

- Roads: Hard-surfaced
- Semihard-surfaced
- Dirt (good motor)
- Dirt (poor motor or private)
- Bridge
- Culvert
- Ford
- Railroads - Single track

WORKS AND STRUCTURES

- Railroads: Abandoned
- Bridge
- Grade crossing
- Railroad under
- Railroad over
- Tunnel
- Buildings in general
- Church
- School

WORKS AND STRUCTURES

- Tanks
- Power line
- Telephone line
- Pipe line
- Utilities
- Dams
- Gravel pit
- Mine, quarry

BOUNDARIES, MARKS, AND MONUMENTS

- County
- Township
- Section
- City
- Survey boundary
- State area
- Rock cutters
- Equipment

DRAINAGE (in blue)

- Permanent streams
- Intermittent streams
- Canals or ditches
- Canal tunnel
- Water tanks
- Ponds, reservoirs
- Springs
- Mars

Approximate Mean Deviations, U.S.W.

TO DETERMINE MAGNETIC NORTH LINE, CONNECT THE PIVOT POINT "P" ON THE SOUTH EDGE OF THE MAP WITH THE ARROW AS SHOWN ON THE DEGREE SCALE AT THE NORTH EDGE OF THE MAP.

Base from U.S.G.S. quadrangles. Revisions to base and conservation areas compiled by Soil Conservation Service from aerial photographs. Lambert projection.

Grid based upon Oregon system (North Zone).

Grid coordinates with last three digits of grid number.

U.S. State plane projection indicated by marginal ticks.

Approximate Mean Deviations, U.S.W.

Through Magnetic Compass (30° West).

USE DIAGRAM ONLY TO OBTAIN NUMERICAL VALUES.

TO DETERMINE MAGNETIC NORTH LINE, CONNECT THE PIVOT POINT "P" ON THE SOUTH EDGE OF THE MAP WITH THE ARROW AS SHOWN ON THE DEGREE SCALE AT THE NORTH EDGE OF THE MAP.

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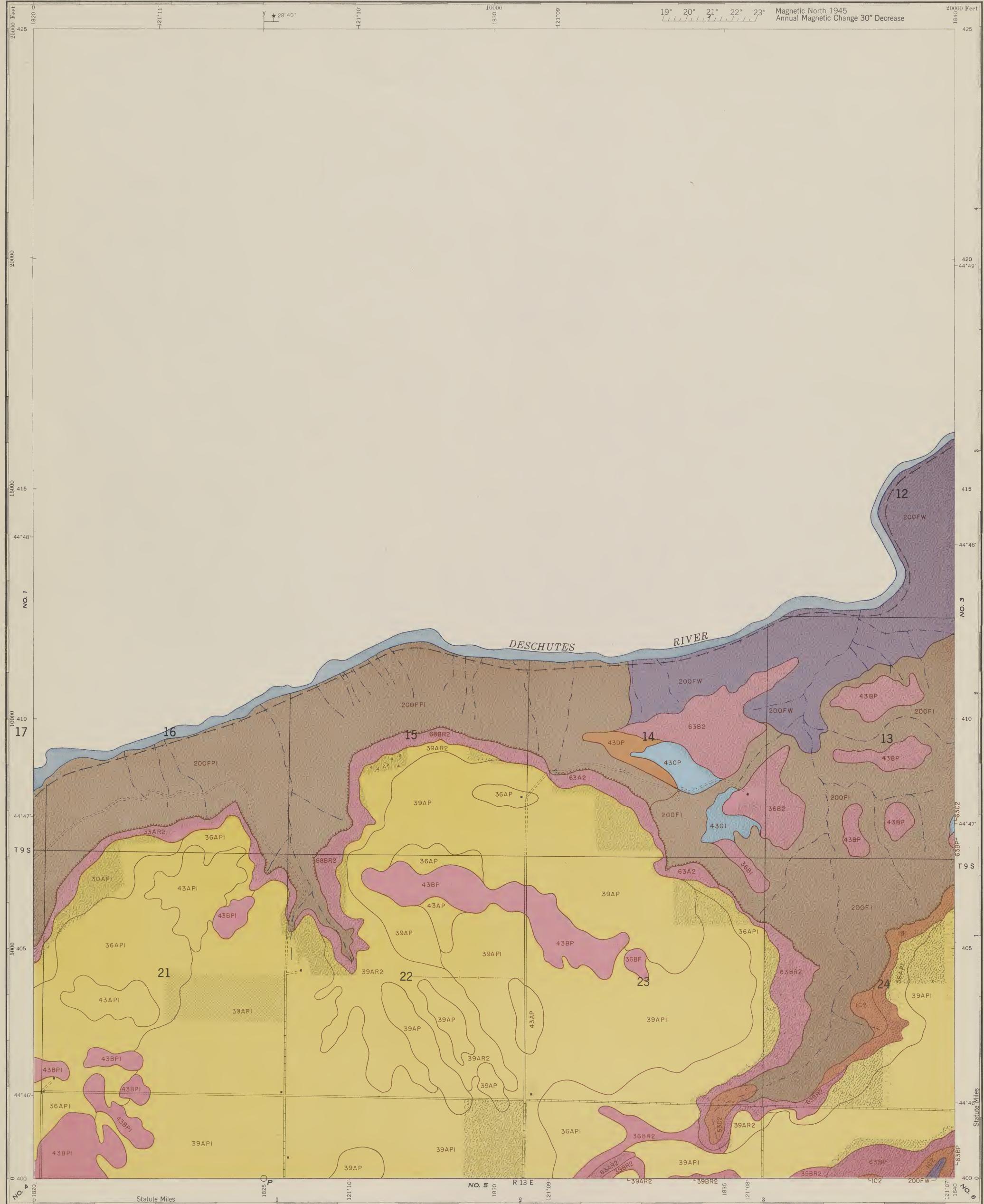
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Approximate Mean Deviations, U.S.W.

TO DETERMINE MAGNET

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

SUITABLE FOR OCCASIONAL
CULTIVATION

NOT SUITABLE FOR CULTIVATION

NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE

I-Nearly level, deep, permeable soils having no
special limitations in use.

II-Nearly level, moderately deep, permeable soils
having minor limitations in use.

III-Moderately deep soils with stone, slope or
texture limitations.

IV-Shallow, droughty or moderately sloping soils
limited to pasture use.

V-Sloping, very stony lands suited for range,
having minor conservation needs.

VI-Steep, very stony lands suited for range, hav-
ing major conservation needs.

VIII-Very steep, many or deeply gullied lands,
essentially non-productive.

DESCHUTES IRRIGATION PROJECT

Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

27G2R

1 - Sheet erosion, 25 percent to 75 percent lost. R - Wind erosion, 25 percent to 75 percent removed by wind.

SOILS

LIGHT AND COARSE TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIAL

- 2 - Deschutes sandy loam, shallow phase
- 3 - Deschutes sandy loam
- 43 - Eri sandy loam
- L3 - Deschutes loamy sand
- 4 - Deschutes silty loam, deep phase
- 5 - Deschutes stony loamy loam
- 19 - Deschutes stony loam
- S43 - Eri stony silty loam

LIGHT AND MEDIUM TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER MODERATELY CONSOLIDATED MATERIAL

- 10 - Madras sandy loam, shallow phase
- 10c - Deschutes sandy loam, shallow phase
- 12 - Madras sandy loam, deep phase
- 13 - Madras stony loam, deep phase
- 13c - Deschutes stony loamy loam
- 90 - Deschutes stony loamy loam
- 36 - Deschutes loamy sand
- 91 - Deschutes loamy sand
- 24 - Deschutes loamy sand

EROSION

SHEET EROSION

- 1 - Less than 25 percent of the surface lost
- 2 - 25 percent to 75 percent of the surface soil lost
- 3 - 75 percent to 100 percent of the surface soil lost, up to 25 percent of the B horizon lost
- 4 - 25 percent to 50 percent of the B horizon lost

GULLY EROSION

- 7 - Occasional shallow gullies
- 7c - Occasional gullies undercut by farm machinery
- B - Shallow gullies less than 100 feet apart laterally or more than 3 per acre
- Bc - Undercutting gullies less than 100 feet apart laterally or more than 3 per acre

WIND EROSION

- P - Up to 25 percent of surface soil removed
- R - 25 percent to 75 percent of surface soil removed
- S - 75 percent to 100 percent of surface soil removed

WIND DEPOSITS

- F - Accumulations 6 inches to 6 feet deep, level
- H - Accumulations 6 inches to 12 inches deep, level
- K - Accumulations 6 inches to 12 inches deep, hummocky
- — Line accumulations too narrow to measure within boundaries

MISCELLANEOUS

- W - Normal erosion
- O - No accumulation
- B - Undifferentiated erosion, hummocky, scattered

EXPLANATION OF SYMBOL

27G2R
1 - Sheet erosion, 25 percent to 75 percent lost. R - Wind erosion, 25 percent to 75 percent removed by wind.

SOILS

LIGHT TO HEAVY TEXTURED SOIL WITH MODERATELY HEAVY TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIALS

- 35 - Agency sandy loam
- 37 - Agency gravelly loam
- 70 - Germ loam
- 36 - Agency loam
- 69 - Agency loamy loam
- 71 - Germ clay loam
- 73 - Germ clay loam, shallow phase

LIGHT TO HEAVY TEXTURED SOILS WITH HEAVY TEXTURED SUBSOILS OVER LIME HARDPAN

- 59 - Malheur loam
- 40 - Madras some loam
- 68 - Malheur loamy loam
- 80 - Malheur clay loam

LIGHT TEXTURED SOIL WITH DEEP, LIGHT TEXTURED SUBSOIL OVER PERMEABLE MATERIALS

- 42 - Metolius sandy loam
- 60 - Metolius sandy loam
- 61 - Metolius fine sandy loam

HEAVY TEXTURED SOIL WITH HEAVY TEXTURED SUBSOIL OVER BASALT OR MIXED CONSOLIDATED MATERIALS

- 52 - Metolius sandy loam
- 93 - Metolius loamy sand
- 8X - LaBella sandy loam
- 51 - Olin clay loam
- 53 - Olin sandy loam

POORLY DRAINED, LIGHT TEXTURED SURFACE SOIL WITH HEAVY TEXTURED SUBSOIL OVER BASALT OR MIXED CONSOLIDATED MATERIALS

- 73 - Redmond loam
- 75 - Redmond stony loam
- 75d - Redmond loamy loam, deep, hidden
- 76 - Redmond clay loam

LIGHT TO HEAVY TEXTURED SOIL WITH HEAVY TEXTURED SUBSOIL MODERATELY CONSOLIDATED MATERIALS

- 73 - Redmond loam
- 75 - Redmond stony loam
- 75d - Redmond loamy loam, deep, hidden
- 76 - Redmond clay loam

MISCELLANEOUS SOILS

- 100 - Rough broken land
- 200 - Rough stony land
- RW - Riverwash
- 91 - Volcanic ash
- 18 - Scabland

LAND USE

Reproduced in gray

Cultivated land, annual and perennial crops such as grain, row crops, alfalfa, clover and grasses



Rangeland - Land formerly covered but now abandoned to annual grasses, creosote, desert grasses, or brush



Range land - Annual or perennial grasses or sagebrush



Woodland - Juniper or Ponderosa pine



Idle land



Forested and brush areas



SLOPE

DOMINANT PERCENT	DOMINANT PERCENT		
	D	E	F
0 to 3	—	—	—
9 to 7	—	—	—
8 to 12	—	—	—
13 to 20	—	—	—
21 to 30	—	—	—
31 and over	—	—	—

GEOGRAPHIC SYMBOLS

WORKS AND STRUCTURES

- Roads: Hard-surfaced
- Semihard surfaces
- Soft good roads
- Soft poor roads
- (B) Unsurfaced
- Bridge
- Railroad
- Timber
- Bridges in general
- Railroads: Single track

WORKS AND STRUCTURES

- Railroads: Abandoned
- Bridge
- State crossing
- Railroad under
- Railroad over
- Timber
- Church
- Edifice

WORKS AND STRUCTURES

- Tank
- Power line
- Tidewater line
- Pipe line
- Canal
- Dams
- Gravel pit
- Mine shaft

BOUNDARIES, MARKS, AND MONUMENTS

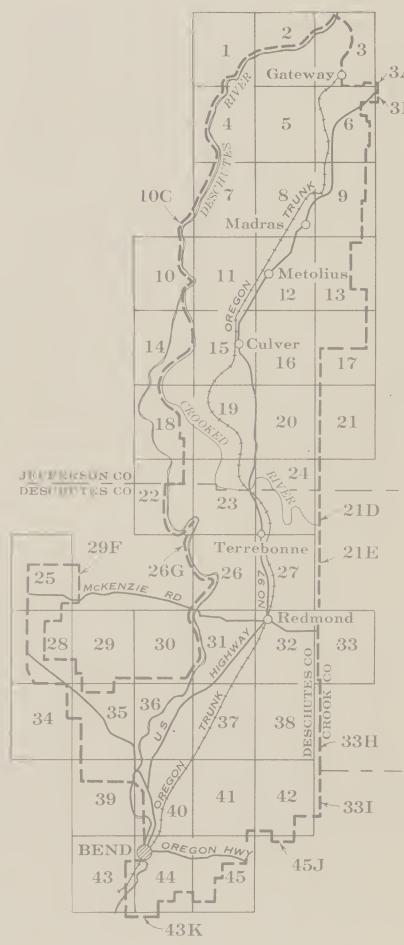
- County
- Church
- Section
- City
- Survey boundary
- Stem areas
- Exterior

DRAINAGE

- Parallelogram (for blue)
- Intermittent streams
- Canals or ditches
- Canal tunnel
- Water banks
- Reservoirs
- Marsh



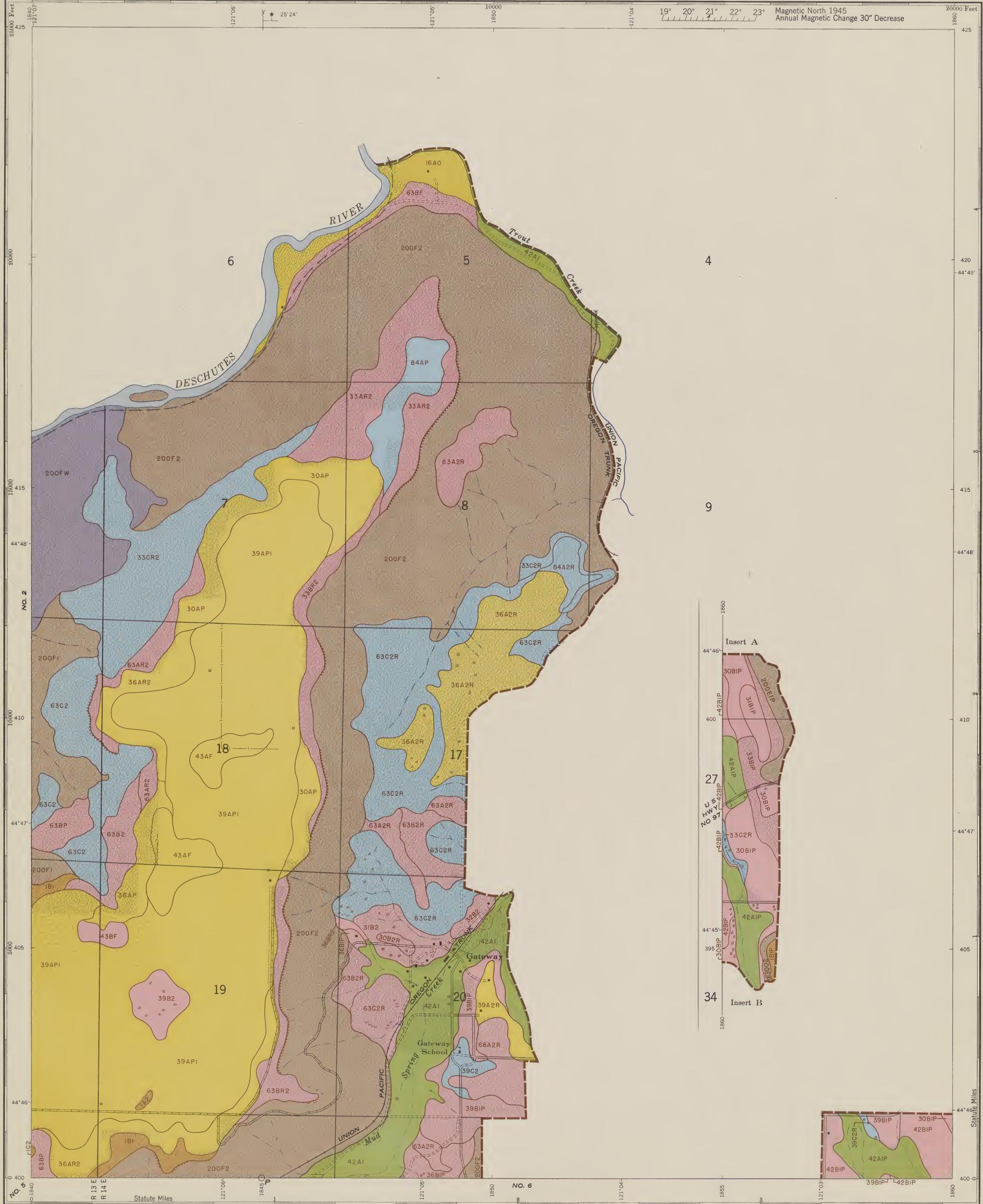
INDEX



USE PROGRAM ONLY TO OBTAIN NUMERICAL VALUES.
TO DETERMINE MAGNETIC NORTH LINE, CONNECT THE POINT "P" ON THE SOUTH EDGE OF THE MAP WITH THE ARROW AS SHOWN ON THE DEGREE SCALE AT THE NORTH EDGE OF THE MAP.

DATA FROM U.S.G.S. TOPOGRAPHIC MAPS, REPRODUCED OR DRAWN
AND CHARTS BY U.S.G.S. COMPILED BY STATE CENSUS
SERVICE FROM AERIAL PHOTOGRAPHS. LAMBERT PROJECTION.
100' GRID; 1:250,000 SCALE (REGULAR SYSTEM) (WITH ZONE)
OF PLANE COORDINATES WITH LAST THREE FIGURES OF DECIMALS
REMOVED. 100' LENGTHS ARE APPROXIMATELY AS INDICATED BY MAGNETIC NORTH.

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

SUITABLE FOR OCCASIONAL
CULTIVATION

NOT SUITABLE FOR CULTIVATION

NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE

I-Nearly level, deep, permeable soils having no
special limitations in use.

II-Nearly level, moderately deep, permeable soils
having minor limitations in use.

III-Moderately deep soils with stone, slope or
texture limitations.

IV-Shallow, droughty or moderately sloping soils
limited to pasture use.

V-Sloping, very stony lands suited for range,
having minor conservation needs.

VII-Steep, very stony lands suited for range, hav-
ing major conservation needs.

VIII-Very steep, stony or droughty lands,
essentially non-productive.

DESCHUTES IRRIGATION PROJECT

Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

- 1. Clay (fine) heavy soils; 1-5 percent slope.
- 2. Shallow water, 5 percent to 10 percent.
- 3. Wind erosion, 25 percent to 75 percent caused by wind.

SOILS

LIGHT AND FINELY TEXTURED SOIL WITH LIGHT TEXTURED SURFACED OVER BASALT OR SIMILAR MATERIAL

- 1. Dark brown sandy loam
- 2. Dark brown sandy loam
- 3. Dark brown clay loam
- 4. Brown sandy loam
- 5. Dark brown loamy sand
- 6. Dark brown loamy sand
- 7. Dark brown loamy sand
- 8. Dark brown loamy sand
- 9. Dark brown loamy sand

MEDIUM AND MEDIUM-HEAVY TEXTURED SOIL WITH MEDIUM TEXTURED SURFACE OVER MEDIUM-TEXTURED MATERIAL

- 10. Medium brown sandy loam
- 11. Dark brown loamy sand
- 12. Dark brown loamy sand
- 13. Medium brown loam
- 14. Medium brown loam
- 15. Medium brown loam
- 16. Medium brown loam
- 17. Dark brown loamy sand
- 18. Dark brown loamy sand
- 19. Dark brown loamy sand
- 20. Dark brown loamy sand
- 21. Dark brown loamy sand
- 22. Dark brown loamy sand
- 23. Dark brown loamy sand
- 24. Dark brown loamy sand
- 25. Dark brown loamy sand
- 26. Dark brown loamy sand

EROSION

SHEET EROSION

- 1. Up to 25 percent slope.
- 2. 26 percent to 50 percent slope.
- 3. 51 percent to 75 percent slope.
- 4. 76 percent to 100 percent slope.

GULLY EROSION

- 1. Gullies up to 10 feet deep.
- 2. Gullies up to 20 feet deep.
- 3. Gullies up to 30 feet deep.
- 4. Gullies up to 40 feet deep.

WIND EROSION

- 1. Up to 25 percent slope.
- 2. 26 percent to 75 percent slope.
- 3. 76 percent to 100 percent slope.

WIND DEPOSITS

- 1. Accumulation, 10 inches to 50 inches high.
- 2. Accumulation, 50 inches to 200 inches high.
- 3. Accumulation, 200 inches or more.

IRRIGATION

- 1. Irrigation.
- 2. Irrigation.
- 3. Irrigation.

SOILS

LIGHT TO MEDIUM TEXTURED SOIL WITH MODERATELY HEAVY TEXTURED SURFACE OVER BASALT OR SIMILAR MATERIAL

- 35. Light brown loam
- 36. Brown gravelly loam
- 37. Tan loam
- 38. Tan loam
- 39. Light brown loam
- 40. Light brown loam

HEAVY TEXTURED SOIL WITH MEDIUM TEXTURED SURFACE OVER BASALT OR SIMILAR MATERIAL

- 41. Tan loam
- 42. Tan loam
- 43. Tan loam
- 44. Tan loam

MEDIUM TEXTURED SOIL WITH A DRY SURFACE

- 45. Medium brown loam
- 46. Medium brown loam
- 47. Medium brown loam

- 48. Medium sandy loam
- 49. Medium loamy soil
- 50. Light brown loam

POORE'S CHAMPO: LIGHT TEXTURED SURFACE SOIL WITH HEAVY TEXTURED SUBSOIL OVER BASALT OR MIXED CINDREROUS MATERIALS

- 51. Tan soil

LIGHT TO HEAVY TEXTURED RIM WITH HEAVY TEXTURED SURFACE OVER AN IRREGULAR MATERIAL

- 52. Tan loam
- 53. Tan loamy soil
- 54. Medium brown loam
- 55. Medium brown loam

MISCELLANEOUS SOILS

- 56. Tan loamy soil
- 57. Tan loamy soil
- 58. Tan loamy soil
- 59. Tan loamy soil

LAND USE

Estimated to 1000

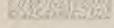
Cultivated land, annual and perennial crops, including orchards, vineyards, and gardens.



Rangeland, land having natural grasses, shrubs, or trees, plus some cultural growths.



Forest land, including timber and brushwood.



Wetland, including swamps, marshes, bogs, and fens.



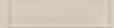
Urban areas, including towns, cities, and villages.



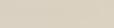
Residential areas, including parks, cemeteries, and golf courses.



Commercial areas, including business, office, and industrial areas.



Industrial areas, including factories, mills, and refineries.



Other areas, including roads, railroads, and airports.



SLOPE

DOMINANT PERCENT

- 0-2% 0-2%
- 3-6% 3-6%
- 7-10% 7-10%

DOMINANT PERCENT

- 11-20% 11-20%
- 21-30% 21-30%
- 31 and over 31 and over

GEOGRAPHIC SYMBOLS

WORKS AND STRUCTURES

- Roads, hard surface
- Secondary, paved
- Old road, paved
- Old road, dirt or gravel
- Bridges
- Culverts
- Ponds
- Railroads - Single track

WORKS AND STRUCTURES

- Water tanks
- Water storage
- Water plant
- Water system
- Power plant
- Tidewater line
- Pipe line
- Canalization
- Drainage
- Reservoirs
- Church

WORKS AND STRUCTURES

- Power line
- Tidewater line
- Pipe line
- Canalization
- Drainage
- Reservoirs
- Church
- Miner's camp

BOUNDARIES, MARKS, AND MONUMENTS

- County
- Township
- Section
- City
- CONSERVATION SURVEY DATA
- Survey stations
- State lines
- Local roads
- Streams
- Boundaries

DRAINAGE (10,000)

- Principal streams
- Minor streams
- Drainage basin
- Canal network
- Wade paths
- Rivers, streams
- Streams
- Marsh

DRIVE DISTANCE (10,000)

- Distance between points

DRIVE TIME (10,000)

- Time required to travel distance

DRIVE SPEED (10,000)

- Speed limit

DRIVE DISTANCE (10,000)

- Distance between points

DRIVE TIME (10,000)

- Time required to travel distance

DRIVE SPEED (10,000)

- Speed limit

DRIVE DISTANCE (10,000)

- Distance between points

DRIVE TIME (10,000)

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- Speed limit

DRIVE DISTANCE (10,000)

- Distance between points

DRIVE TIME (10,000)

- Time required to travel distance

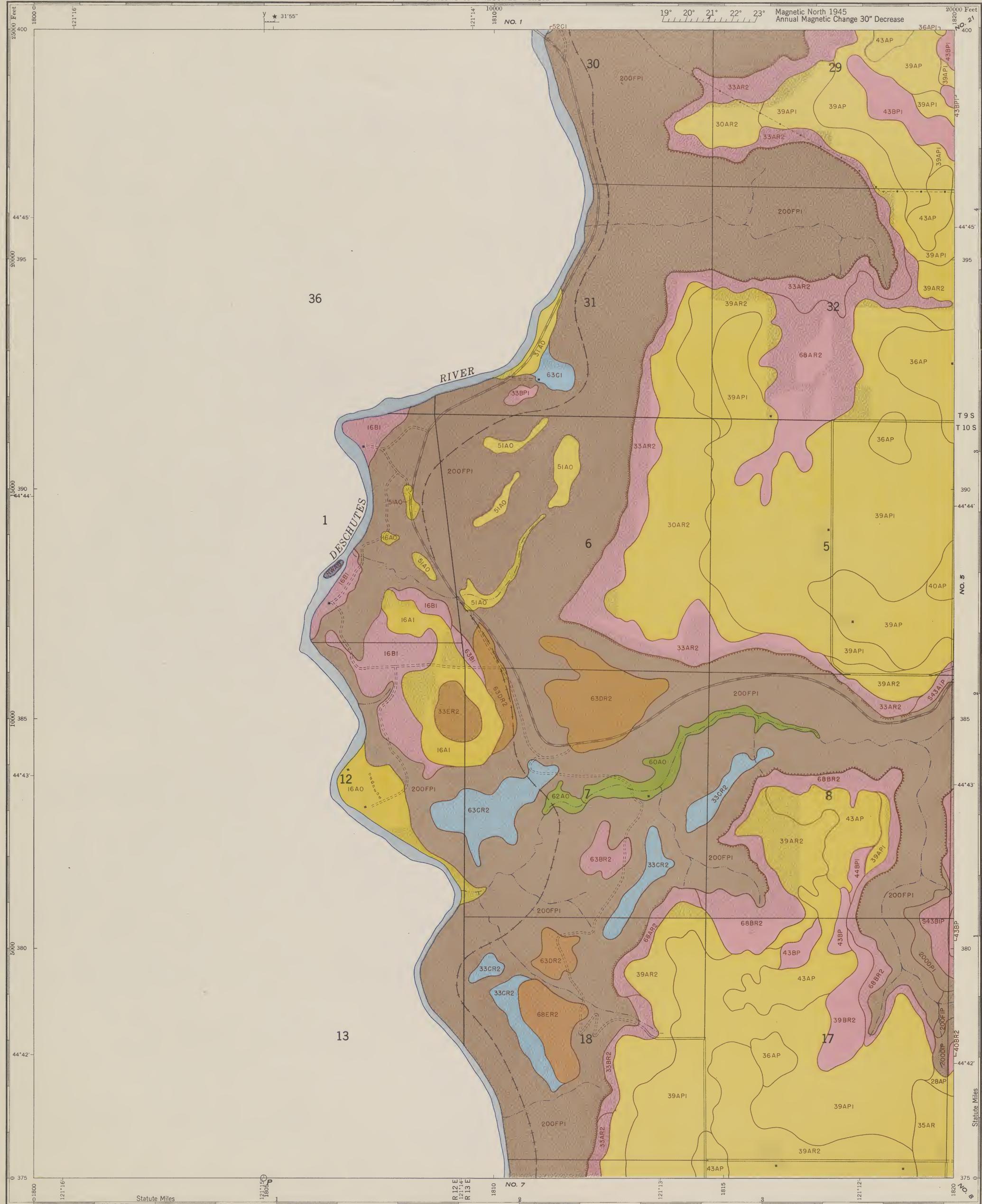
DRIVE SPEED (10,000)

- Speed limit

DRIVE DISTANCE (10,000)

- Distance between points

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

SUITABLE FOR OCCASIONAL
CULTIVATION

NOT SUITABLE FOR CULTIVATION

NOT SUITABLE FOR CULTIVATION
RANGE OR SIMILAR USE

I-Nearly level, deep, permeable soils having no special limitations in use.

II-Nearly level, moderately deep, permeable soils having minor limitations in use.

III-Moderately deep soils with stone, slope or texture limitations.

IV-Shallow, droughty or moderately sloping soils limited to pasture use.

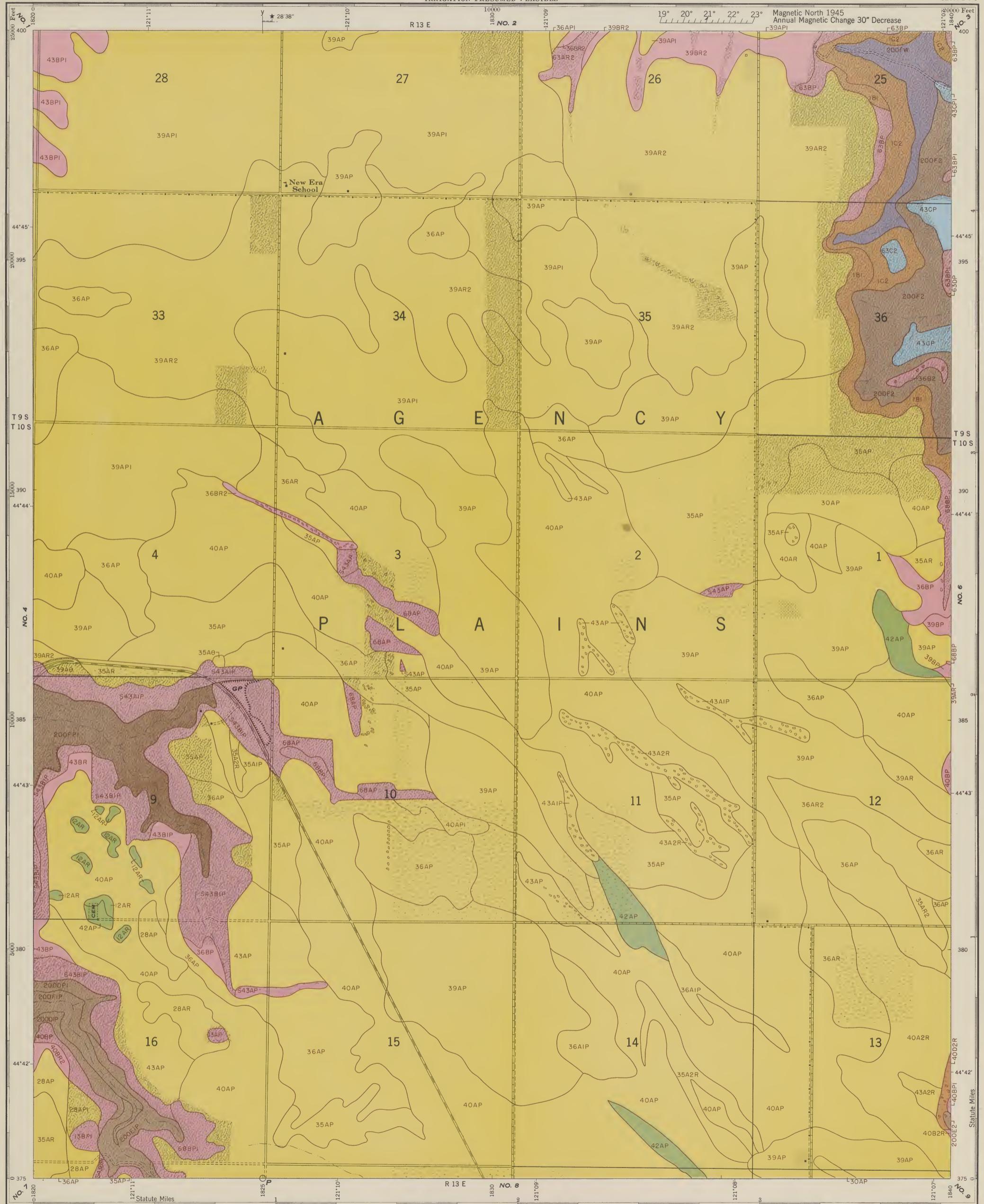
V-Sloping, very stony lands suited for range, having minor conservation needs.

VI-Steep, very stony lands suited for range, having major conservation needs.

VII-Very steep, stony or droughty lands; essentially non-productive.

SOIL CONSERVATION SERVICE, WASHINGTON D. C.
1948 APRIL 1948

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

SUITABLE FOR OCCASIONAL CULTIVATION

NOT SUITABLE FOR CULTIVATION

**NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE**

- | | | | | | | |
|---|--|---|--|--|--|---|
| I-Nearly level, deep, permeable soils having no special limitations in use. | II-Nearly level, moderately deep, permeable soils having minor limitations in use. | III-Moderately deep soils with stone, slope or texture limitations. | IV-Shallow, droughty or moderately sloping soils limited to pasture use. | V-Sloping, very stony lands suited for range, having minor conservation needs. | VII-Steep, very stony lands suited for range, having major conservation needs. | VIII-Very steep, stony or droughty lands; essentially non-productive. |
|---|--|---|--|--|--|---|

DESCHUTES IRRIGATION PROJECT

Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

1707R

27-Soil type Micragric loam; B-Slope, 8 percent to 12 percent;
C-Sheet erosion, 25 percent to 75 percent lost; R-Wind erosion, 25 percent to 75 percent removed by wind.

SOILS

LIGHT AND COARSE-TEXTURED SOIL WITH LIGHT-TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIAL

- 2 - Deschutes sandy loam, shallow phase
- 3 - Deschutes sandy loam
- 43 - Erz sandy loam
- 12 - Deschutes loamy sand
- 4 - Deschutes sandy loam, deep phase
- 5 - Deschutes loamy sandy loam
- 19 - Deschutes loamy loam
- S43 - Erz loamy silty loam

LIGHT AND MEDIUM-TEXTURED SOIL WITH LIGHT-TEXTURED SUBSOILS OVER MODERATELY CONSOLIDATED MATERIAL

- 10 - Madras sandy loam, shallow phase
- 10c - Deschutes sandy loam, shallow phase
- 12 - Madras loamy loam, deep phase
- 10c - Deschutes loamy loam, deep phase
- 13 - Madras loamy sandy loam
- 13c - Deschutes loamy sandy loam
- 90 - Deschutes loamy sand
- 9c - Deschutes loamy sand
- 24 - Deschutes loamy sand

EROSION

SHEET EROSION

- 1 - Less than 25 percent of the surface soil lost
- 2 - 25 percent to 75 percent of the surface soil lost
- 3 - 75 percent to 100 percent of the surface soil lost or up to 25 percent of the B horizon lost
- 4 - 25 percent to 50 percent of the B horizon lost

GULF EROSION

- 7 - Occasional shallow gullies
- 7c - Occasional gullies unbroken by farm machinery
- 8 - Shallow gullies less than 100 feet apart, 100 feet from 3 per acre
- 8c - Deep, irregular gullies less than 100 feet apart, generally no more than 3 per acre

WIND EROSION

- P - Up to 0.5 percent of surface soil removed
- Pc - 0.5 percent to 75 percent of surface soil removed
- C - 75 percent to 100 percent of surface soil removed

WIND DEPOSITS

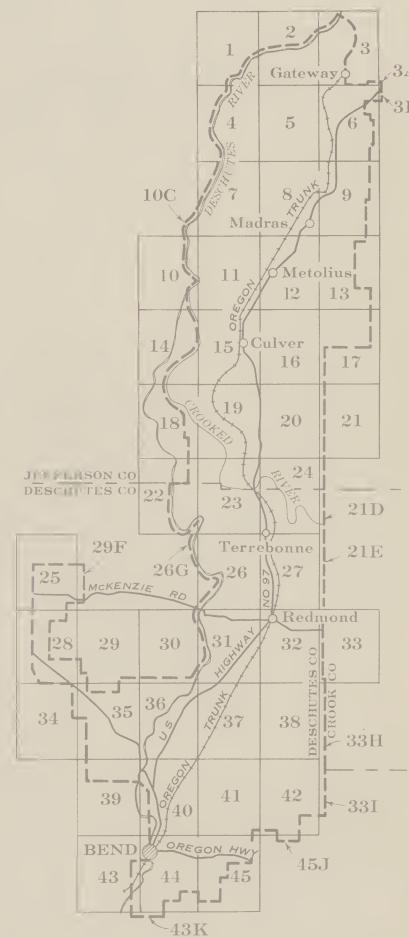
- F - Accumulations 0 inches to 6 inches deep, level
- H - Accumulations 6 inches to 12 inches deep, level
- K - Accumulations 6 inches to 12 inches deep, hummocky
- - Unconsolidated surface accumulations to include winter snowdrifts

MISCELLANEOUS

- W - Normal erosion
- O - No accelerated erosion
- E - Undifferentiated erosion (including other soils)

EXPLANATION OF SYMBOL

INDEX



LAND USE

Reproduced in gray



SLOPE

	DOMINANT PERCENT	DOMINANT PERCENT	
B	0 to 3	D	13 to 20
C	4 to 7	E	21 to 30
G	8 to 12	F	31 and over

GEOGRAPHIC SYMBOLS

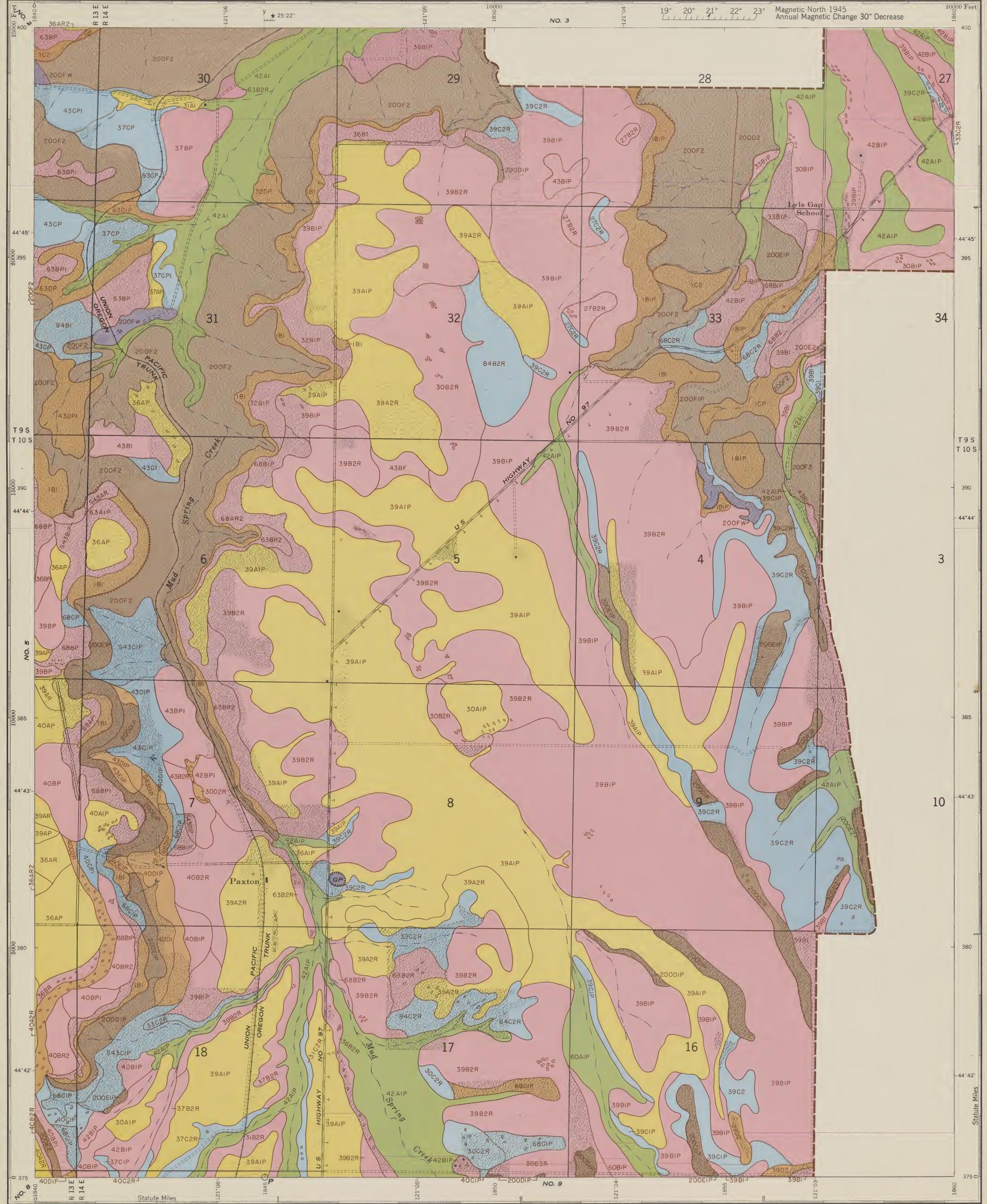


Map from U.S.G.S. Survey 1:250,000. Revision 2 base
and orientation lines are derived by Soil Conservation
Service from aerial triangulation. Line construction
is based on public road highway system (Highway
and county roads) with the exception of Oregon
boundary. Perimeter boundary is indicated by straight black lines.

USE DIAGRAM ONLY TO OBTAIN NUMERICAL VALUES.
TO DETERMINE MAGNETIC NORTH LINE, CONNECT THE
POINT POINT "P" ON THE SOUTH EDGE OF THE MAP
WITH THE ARROW AS SHOWN ON THE DEGREE
SCALE AT THE NORTH EDGE OF THE MAP.

Map from U.S.G.S. Survey 1:250,000. Revision 2 base
and orientation lines are derived by Soil Conservation
Service from aerial triangulation. Line construction
is based on public road highway system (Highway
and county roads) with the exception of Oregon
boundary. Perimeter boundary is indicated by straight black lines.

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



DESCHUTES IRRIGATION PROJECT

Scale 1:15840

LEGEND

EXPLANATION OF SYMBOLS

SOILS

1-10 - Light textured soils with moderate to heavy texture.
11-12 - Moderate textured soils with moderate to heavy texture.

SOCIAL

LIGHT AND MEDIUM TEXTURED SOILS WITH LIGHT TEXTURED SUBSOIL OVER HARD MATERIALS
1-3 - Deschutes sandy loam
4-5 - Deschutes sandy loam
42 - Deschutes sandy loam
43 - Deschutes sandy loam
44 - Deschutes sandy loam
45 - Deschutes sandy loam
46 - Deschutes sandy loam
47 - Deschutes sandy loam
48 - Deschutes sandy loam
49 - Deschutes sandy loam
50 - Deschutes sandy loam
51 - Deschutes sandy loam
52 - Deschutes sandy loam

LIGHT AND MEDIUM TEXTURED SOILS WITH LIGHT TEXTURED SUBSOIL OVER HARD MATERIALS
10-11 - Deschutes sandy loam
12-13 - Deschutes sandy loam
14-15 - Deschutes sandy loam
16-17 - Deschutes sandy loam
18-19 - Deschutes sandy loam
20-21 - Deschutes sandy loam
22-23 - Deschutes sandy loam
24-25 - Deschutes sandy loam
26-27 - Deschutes sandy loam
28-29 - Deschutes sandy loam
30-31 - Deschutes sandy loam
32-33 - Deschutes sandy loam
34-35 - Deschutes sandy loam
36-37 - Deschutes sandy loam
38-39 - Deschutes sandy loam
40-41 - Deschutes sandy loam
43-44 - Deschutes sandy loam
45-46 - Deschutes sandy loam
47-48 - Deschutes sandy loam
49-50 - Deschutes sandy loam
51-52 - Deschutes sandy loam

EROSION

SHEET EROSION

- 1- Less than 25 percent of the surface soil lost.
- 2- 25 percent to 75 percent of the surface soil lost.
- 3- 75 percent to 100 percent of the surface soil lost or up to 25 percent of the B horizon lost.
- 4- 25 percent to 50 percent of the B horizon lost.

GULLY EROSION

- 2- Occasional shallow gullies.
- 3- Occasional gullies impassable by farm machinery.
- 4- Shallow gullies less than 100 feet apart, more than 2 per acre.
- 5- Unpassable gullies less than 100 feet apart, laterally or more than 3 per acre.

WIND EROSION

- 1- Up to 25 percent of surface soil removed.
- 2- 25 percent to 75 percent of surface soil removed.
- 3- 75 percent to 100 percent of surface soil removed.

WIND DEPOSITS

- F- Accumulations 0 inches to 6 inches deep, level.
- H- Accumulations 6 inches to 12 inches deep, hummocky.
- I- Accumulations 12 inches to 18 inches deep, hummocky.
- J- Accumulations 18 inches to 30 inches deep, hummocky.

MISCELLANEOUS

- W- Normal erosion.
- N- No accelerated erosion.
- O- Unaccelerated erosion (temporarily increased).

SOCIAL

LIGHT TO HEAVY TEXTURED SOIL WITH MODERATE TO HEAVY TEXTURED SUBSOIL OVER SEMI-PERMANTENT MATERIALS

53 - Lignite sand loam
54 - Sandy loam
55 - Clay loam
56 - Clay loam, shallow plow

LIGHT TO HEAVY TEXTURED SOIL WITH SEMI-TEXTURED SUBSOIL OVER LIGHT HARDPAN

57-58 - Mollis loam
59 - Mollis sandy loam
60 - Mollis loam
61 - Mollis clay loam

LIGHT TEXTURED SOIL WITH DEEPLY TEXTURED SUBSOIL OVER PERMEABLE MATERIALS

62-63 - Mollis loam
64 - Mollis sandy loam
65 - Mollis loam
66 - Mollis clay loam

LIGHT TEXTURED SOIL WITH DEEPLY TEXTURED SUBSOIL OVER PERMEABLE MATERIALS

67-68 - Mollis loam

69-70 - Mollis loam

71-72 - Mollis loam

73-74 - Mollis loam

75-76 - Mollis loam

77-78 - Mollis loam

79-80 - Mollis loam

81-82 - Mollis loam

83-84 - Mollis loam

85-86 - Mollis loam

87-88 - Mollis loam

89-90 - Mollis loam

91-92 - Mollis loam

93-94 - Mollis loam

95-96 - Mollis loam

97-98 - Mollis loam

99-100 - Mollis loam

101-102 - Mollis loam

103-104 - Mollis loam

105-106 - Mollis loam

107-108 - Mollis loam

109-110 - Mollis loam

111-112 - Mollis loam

113-114 - Mollis loam

115-116 - Mollis loam

117-118 - Mollis loam

119-120 - Mollis loam

121-122 - Mollis loam

123-124 - Mollis loam

125-126 - Mollis loam

127-128 - Mollis loam

129-130 - Mollis loam

131-132 - Mollis loam

133-134 - Mollis loam

135-136 - Mollis loam

137-138 - Mollis loam

139-140 - Mollis loam

141-142 - Mollis loam

143-144 - Mollis loam

145-146 - Mollis loam

147-148 - Mollis loam

149-150 - Mollis loam

151-152 - Mollis loam

153-154 - Mollis loam

155-156 - Mollis loam

157-158 - Mollis loam

159-160 - Mollis loam

161-162 - Mollis loam

163-164 - Mollis loam

165-166 - Mollis loam

167-168 - Mollis loam

169-170 - Mollis loam

171-172 - Mollis loam

173-174 - Mollis loam

175-176 - Mollis loam

177-178 - Mollis loam

179-180 - Mollis loam

181-182 - Mollis loam

183-184 - Mollis loam

185-186 - Mollis loam

187-188 - Mollis loam

189-190 - Mollis loam

191-192 - Mollis loam

193-194 - Mollis loam

195-196 - Mollis loam

197-198 - Mollis loam

199-200 - Mollis loam

201-202 - Mollis loam

203-204 - Mollis loam

205-206 - Mollis loam

207-208 - Mollis loam

209-210 - Mollis loam

211-212 - Mollis loam

213-214 - Mollis loam

215-216 - Mollis loam

217-218 - Mollis loam

219-220 - Mollis loam

221-222 - Mollis loam

223-224 - Mollis loam

225-226 - Mollis loam

227-228 - Mollis loam

229-230 - Mollis loam

231-232 - Mollis loam

233-234 - Mollis loam

235-236 - Mollis loam

237-238 - Mollis loam

239-240 - Mollis loam

241-242 - Mollis loam

243-244 - Mollis loam

245-246 - Mollis loam

247-248 - Mollis loam

249-250 - Mollis loam

251-252 - Mollis loam

253-254 - Mollis loam

255-256 - Mollis loam

257-258 - Mollis loam

259-260 - Mollis loam

261-262 - Mollis loam

263-264 - Mollis loam

265-266 - Mollis loam

267-268 - Mollis loam

269-270 - Mollis loam

271-272 - Mollis loam

273-274 - Mollis loam

275-276 - Mollis loam

277-278 - Mollis loam

279-280 - Mollis loam

281-282 - Mollis loam

283-284 - Mollis loam

285-286 - Mollis loam

287-288 - Mollis loam

289-290 - Mollis loam

291-292 - Mollis loam

293-294 - Mollis loam

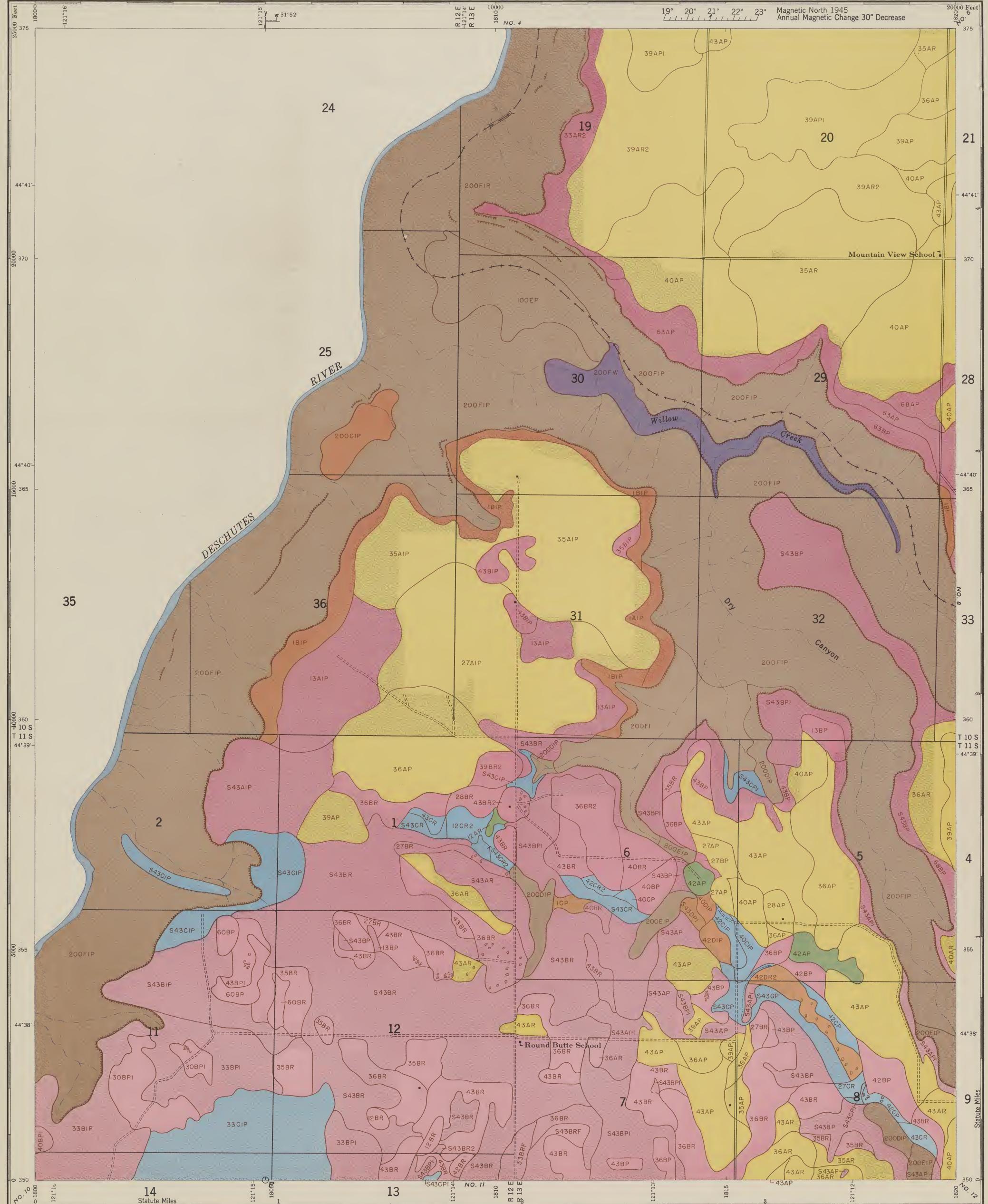
295-296 - Mollis loam

297-298 - Mollis loam

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OREGON

CLASSES OF LAND ACCORDING TO CAPABILITY IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

SUITABLE FOR OCCASIONAL CULTIVATION

NOT SUITABLE FOR CULTIVATION

**NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE**

- | | | | | | | |
|---|--|---|--|--|---|--|
| I-Nearly level, deep, permeable soils having no special limitations in use. | II-Nearly level, moderately deep, permeable soils having minor limitations in use. | III-Moderately deep soils with stone, slope or texture limitations. | IV-Shallow, droughty or moderately sloping soils limited to pasture use. | V-Sloping, very stony lands suited for range, having minor conservation needs. | VI-Steep, very stony lands suited for range, having major conservation needs. | VII-Very steep, stony or droughty lands; essentially non-productive. |
|---|--|---|--|--|---|--|

DESCHUTES IRRIGATION PROJECT

Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

27/28

27-Soil type Madras sandy loam, C₁ slope, 8 percent to 12 percent.
28-Sheet erosion, 25 percent to 75 percent lost; R-Wind erosion, 25 percent to 75 percent removed beyond.

SOILS

LIGHT AND DENSE TEXTURED SOIL WITH LIGHT TEXTURED SUBSOIL OVER BASALT OR SIMILAR MATERIAL

- 1 - Deschutes sandy loam, shallow phase
- 2 - Deschutes sandy loam
- 3 - Deschutes sandy loam
- 4 - Deschutes loamy sand
- 5 - Deschutes loamy loam, deep phase
- 6 - Deschutes loamy loam
- 7 - Deschutes loamy loam
- 8 - Deschutes sandy loam
- 9 - Deschutes loamy loam
- 10 - Deschutes sandy loam

LIGHT AND MEDIUM TEXTURED SOIL WITH LIGHT TEXTURED SUBSOIL OVER MODERATELY CONSOLIDATED MATERIAL

- 11 - Madras loamy loam, shallow phase
- 12 - Deschutes loamy loam, deep phase
- 13 - Deschutes loamy loam, deep phase
- 14 - Deschutes loamy loam
- 15 - Deschutes loamy loam
- 16 - Deschutes loamy loam
- 17 - Deschutes loamy sand
- 18 - Deschutes loamy loam
- 19 - Deschutes loamy loam
- 20 - Deschutes loamy loam
- 21 - Deschutes loamy loam

LIGHT AND MEDIUM TEXTURED SOIL WITH LIGHT TEXTURED SUBSOIL OVER MODERATELY CONSOLIDATED MATERIAL

- 11 - Madras loamy loam, shallow phase
- 12 - Deschutes loamy loam, deep phase
- 13 - Deschutes loamy loam
- 14 - Deschutes loamy loam
- 15 - Deschutes loamy loam
- 16 - Deschutes loamy loam
- 17 - Deschutes loamy sand
- 18 - Deschutes loamy loam
- 19 - Deschutes loamy loam
- 20 - Deschutes loamy loam
- 21 - Deschutes loamy loam

EROSION

SHEET EROSION

- 1 - Less than 25 percent of the surface lost
- 2 - 25 percent to 75 percent of the surface lost
- 3 - 75 percent to 100 percent of the surface lost
- 4 - 100 percent to 25 percent of the B surface lost
- 5 - 25 percent to 50 percent of the B surface lost

GULLY EROSION

- 6 - Occasional shallow gullies
- 7 - Occasional gullies increasing in term. incidence
- 8 - Shallow gullies less than 100 feet apart, usually no more than 2 per acre
- 9 - Unusually gullies less than 100 feet apart, usually no more than 3 per acre

WIND EROSION

- P - Up to 25 percent of surface lost removed
- R - 25 percent to 75 percent of surface lost removed
- S - 75 percent to 100 percent of surface lost removed

WIND DEPOSITS

- F - Accumulations 0 to 6 inches deep, level
- H - Accumulations 6 inches to 12 inches deep, level
- K - Accumulations 6 inches to 12 inches deep, hummocky
- L - Line accumulations (no surface to indicate width boundaries)

MISCELLANEOUS

- W - Normal erosion
- O - No accelerated erosion
- B - Undifferentiated erosion (hummocky, minor mass)

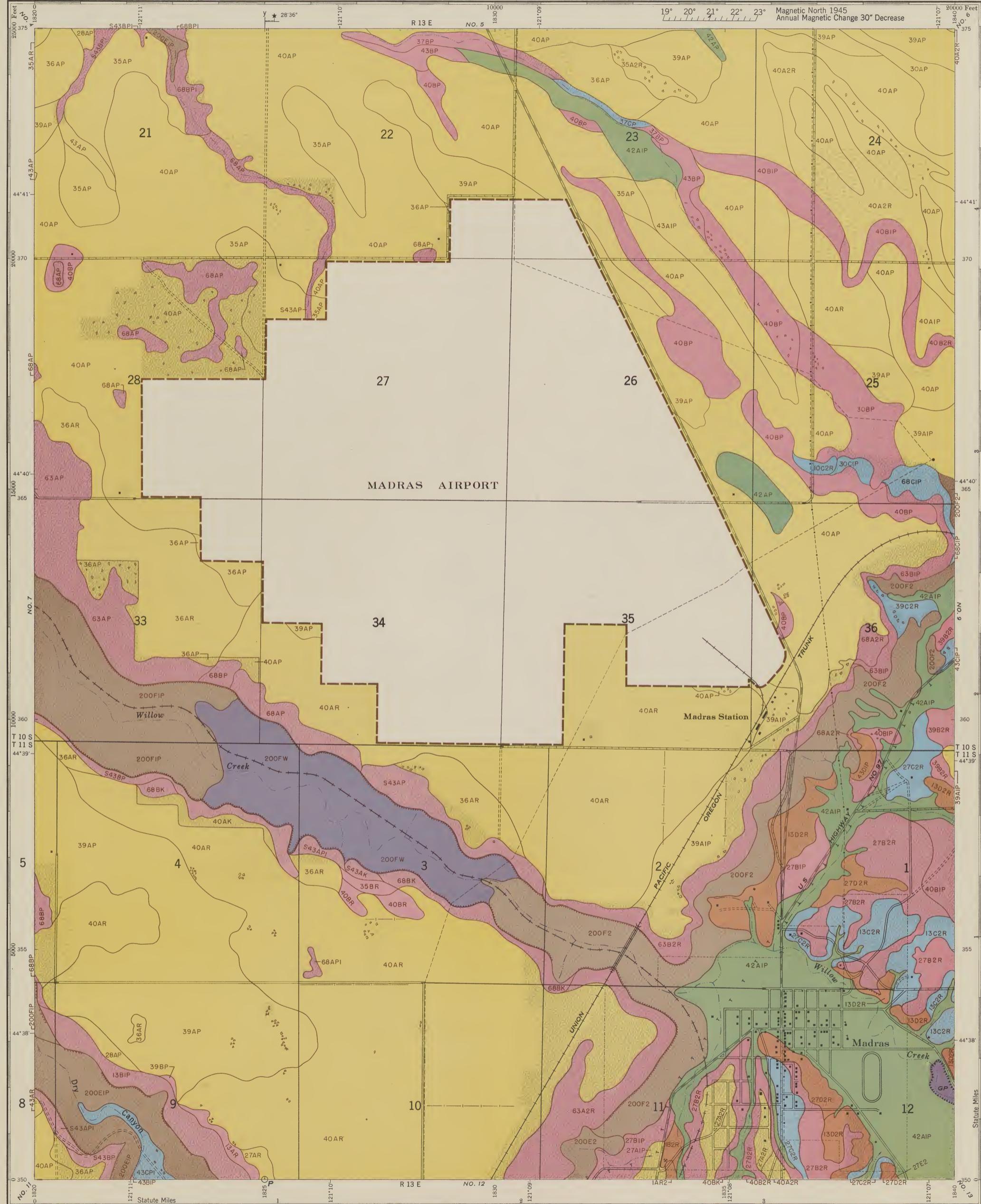
LIGHT TO HEAVY TEXTURED SOIL WITH MODERATELY HEAVY TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIALS

- 22 - Metolius loamy loam
- 23 - Metolius loamy sand
- 24 - Laclede sandy loam
- 25 - Agency sandy loam
- 26 - Agassiz sandy loam
- 27 - Keeler loam
- 28 - Keeler loam
- 29 - Agency stony loam
- 30 - Gove gray loam
- 31 - Gove gray loam, shallow phase

LIGHT TO HEAVY TEXTURED SOILS WITH HEAVY TEXTURED SUBSOILS OVER LIME HARDCLAY

- 32 - Madras loam
- 33 - Madras sandy loam
- 34 - Madras loamy loam
- 35 - Madras loamy loam, shallow phase
- 36 - Madras loamy loam
- 37 - Madras loamy loam, shallow phase
- 38 - Madras loamy loam
- 39 - Madras loamy loam
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OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



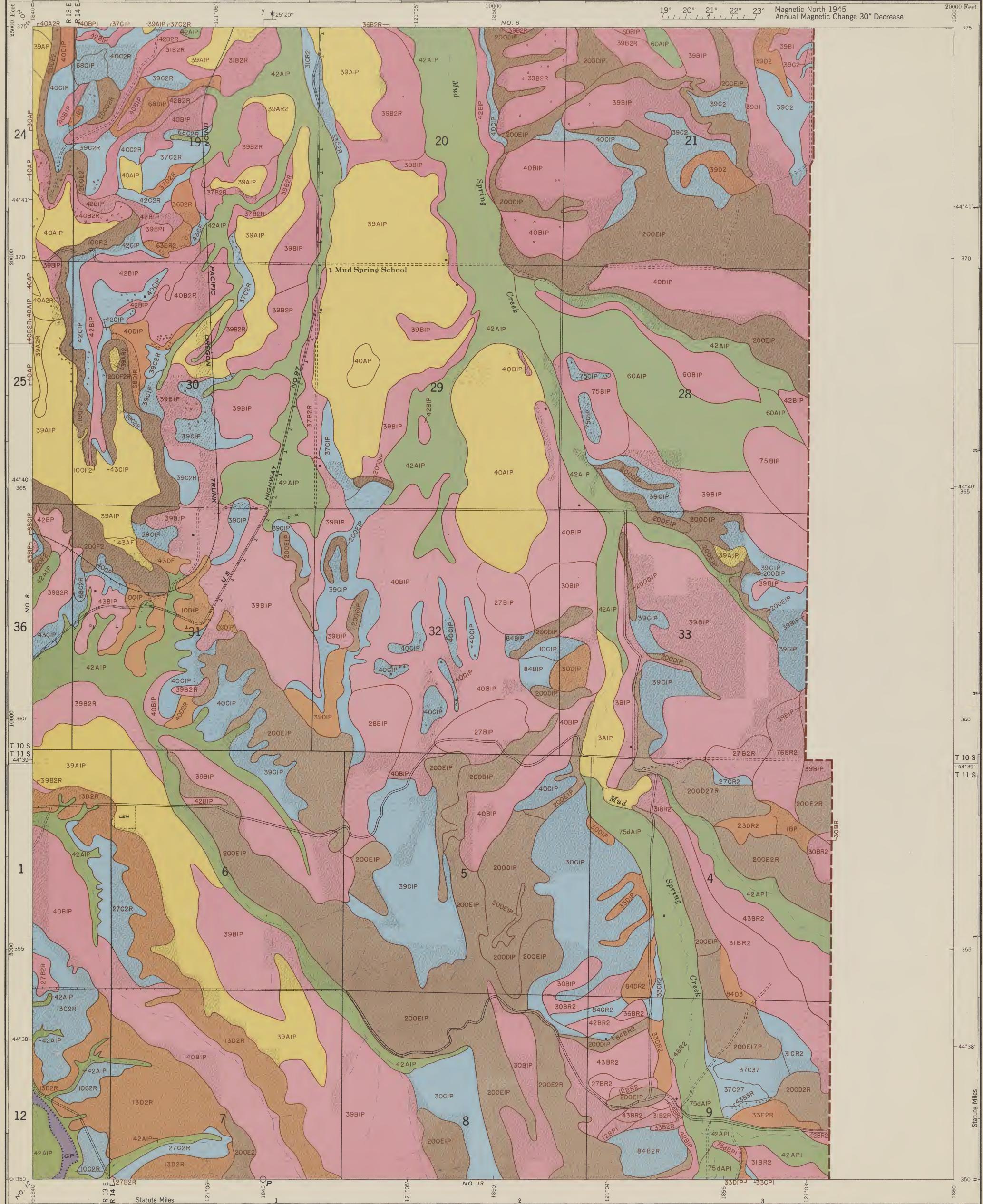
SUITABLE FOR CULTIVATION

SUITABLE FOR OCCASIONAL
CULTIVATION

NOT SUITABLE FOR CULTIVATION

NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

SUITABLE FOR OCCASIONAL
CULTIVATION

NOT SUITABLE FOR CULTIVATION

NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE

I-Nearly level, deep, permeable soils having no special limitations in use.

II-Nearly level, moderately deep, permeable soils having minor limitations in use.

III-Moderately deep soils with stone, slope or texture limitations.

IV-Shallow, droughty or moderately sloping soils limited to pasture use.

V-Sloping, very stony lands suited for range, having minor conservation needs.

VI-Sloping, very stony lands suited for range, having major conservation needs.

VII-Steep, very stony lands suited for range, having major conservation needs.

DESCHUTES IRRIGATION PROJECT

Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

27C2R

ZTSWII type, Madras sandy loam, C-Slope, 8 percent to 12 percent.
2-Sheet erosion, 25 percent to 75 percent lost. R-Wind erosion, 25 percent to 75 percent removed by wind.

SOILS

LIGHT AND COARSE TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIAL

- 2 - Deschutes sandy loam, shallow coarse
- 3 - Deschutes sandy loam
- 43 - Deschutes loamy sand
- 44 - Deschutes loamy loam, deep phase
- 5 - Deschutes loamy loam
- 19 - Deschutes loamy loam
- 543 - Deschutes loamy loam

LIGHT AND MEDIUM TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER MODERATELY CONSOLIDATED MATERIAL

- 10 - Madras sandy loam, shallow phase
- 10C - Deschutes loamy loam, shallow phase
- 12 - Madras sandy loam, deep phase
- 12C - Deschutes loamy loam, deep phase
- 13 - Deschutes loamy loam
- 13C - Deschutes loamy loam
- 90 - Deschutes loamy sandy loam
- 26 - Deschutes loamy sand
- 9c - Deschutes loamy sand
- 24 - Deschutes loamy sand

EROSION

SHEET EROSION

- 1 - Less than 1% percent of the surface soil lost
- 2 - 25 percent to 75 percent of the surface soil lost
- 3 - 75 percent to 100 percent of the surface soil lost, or up to 25 percent of the B horizon lost
- 4 - 25 percent to 50 percent of the B horizon lost

GULLY EROSION

- 7 - Deep gullies, greater than 100 feet deep laterally or more than 3 per acre
- 8 - Shallow gullies less than 100 feet away laterally or more than 3 per acre
- 9 - Undeveloped gullies less than 100 feet away laterally, or more than 3 per acre

WIND EROSION

- P - Up to 25 percent of surface soil removed
- R - 25 percent to 75 percent of surface soil removed
- S - 75 percent to 100 percent of surface soil removed

WIND DEPOSITS

- F - Accumulations 0 inches to 6 inches deep, level
- H - Accumulations 6 inches to 12 inches deep, level
- K - Accumulations 6 inches to 12 inches deep, hummocky
- — — Line accumulations and narrow 16 inches within boundaries

MISCELLANEOUS

- W - Normal erosion
- O - No accelerated erosion
- U - Undifferentiated erosion (farmlands, urban areas)

EXPLANATION OF SYMBOL

27C2R

ZTSWII type, Madras sandy loam, C-Slope, 8 percent to 12 percent.
2-Sheet erosion, 25 percent to 75 percent lost. R-Wind erosion, 25 percent to 75 percent removed by wind.

SOILS

LIGHT TO HEAVY TEXTURED SOIL WITH MODERATELY HEAVY TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIALS

- 30 - Asbury sandy loam
- 37 - Asbury gravelly loam
- 70 - Gem loam
- 86 - Asbury loam
- 88 - Asbury loamy loam
- 71 - Gem clay loam
- 73 - Gem clay loam, shallow phase

LIGHT TO HEAVY TEXTURED SOILS WITH HEAVY TEXTURED SUBSOILS OVER LIME HARDPAN

- 39 - Malheur loam
- 40 - Malheur loamy loam
- 65 - Malheur loamy loam
- 85 - Madras clay loam

LIGHT TEXTURED SOIL WITH DEEP, LIGHT TEXTURED SUBSOIL OVER PERMEABLE MATERIALS

- 42 - Melville sandy loam
- 60 - Melville sandy loam
- 61 - Merlin fine sandy loam

LAND USE

Reproduced in gray

Cultivated land - Annual and perennial crops such as grain, row crops, silage, cover and pasture

- 62 - Metolius sandy loam
- 92 - Metolius loamy sand
- 64 - Latilaw sandy loam

Poorly Drained, Light Textured Surface Soil with Heavy Textured Subsoil over Basalt or Mixed Consolidated Materials

- 51 - Delin clay loam
- 52 - Delin sandy loam

Light to Heavy Textured Soil with Heavy Textured Subsoils Moderately Consolidated Materials

- 74 - Redmond loam
- 75 - Redmond loamy loam
- 75d - Redmond loamy loam, deep phase
- 76 - Redmond clay loam

Miscellaneous Soils

- 100 - Rough prairie land
- 200 - Rough prairie land
- RW - Riverbank
- 81 - Volcanic ash
- 11 - Scabland

Rough grass - Annual grasses, ungrazed

Woodland - Juniper, Ponderosa pine

15a land

Farmstead and urban area



SLOPE

Dominant Percent

A	0 to 3	D	13 to 20
B	4 to 7	E	21 to 35
C	8 to 12	F	36 and over

Dominant Percent

D	13 to 20
E	21 to 35
F	36 and over

GEOGRAPHIC SYMBOLS

WORKS AND STRUCTURES

- Roads - Hard-surfaced
- Semihard-surfaced
- Dirt (good motor)
- Dirt (poor motor or private)
- Bridge
- Gulvert
- Ford
- Railroads - Single track

WORKS AND STRUCTURES

- Railroads - Abandoned
- Bridges
- Cattle crossing
- Railroad under
- Railroad over
- Buildings in general
- Church
- School

WORKS AND STRUCTURES

- Tanks
- Power line
- Telephone line
- Pipe line
- Cemeteries
- Dams
- Gravel pit
- Mine, quarry

BOUNDARIES, MARKS, AND MONUMENTS

- County
- Township
- Section
- City
- Survey boundary
- Story areas
- Rock outcrops
- Escarpment

DRAINAGE (in blue)

- Perennial streams
- Intermittent streams
- Canals or ditches
- Canal tunnel
- Water tanks
- Ponds, reservoirs
- Springs
- Sinks
- Marsh

Approximate Mean Elevation, 1935
Annual Magnetic Change 1.30 W.E.

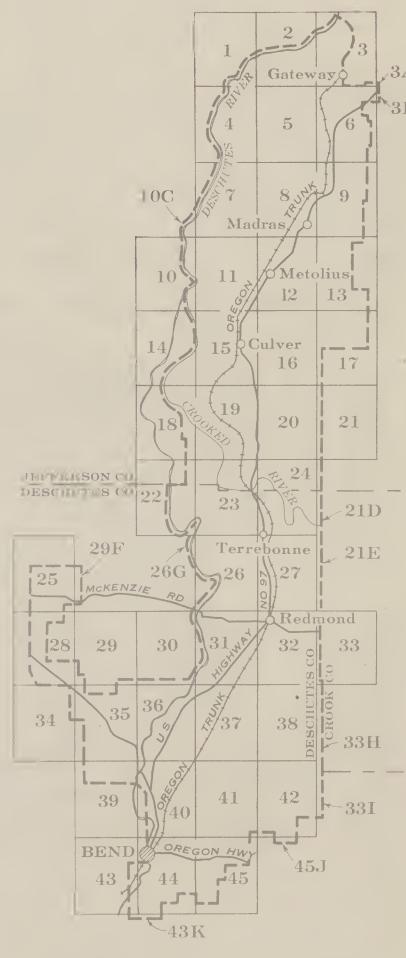
USE DIAGRAM ONLY TO OBTAIN NUMERICAL VALUES.
TO DETERMINE MAGNETIC NORTH LINE: CONNECT THE PIVOT POINT "P" ON THE SOUTH EDGE OF THE MAP WITH THE ARROW AS SHOWN ON THE DEGREE SCALE AT THE NORTH EDGE OF THE MAP.

Base from U.S.G.S. quadrangles. Revisions to base and conservation areas compiled by Soil Conservation Service from aerial photographs. Lambert projection.

1000 foot grid based on Gages system (North Zone).

W.L. plane coordinates with last three digits of grid number permitted. Polyconic projection indicated by marginal ticks.

INDEX



W.E.

N.

S.

E.

W.

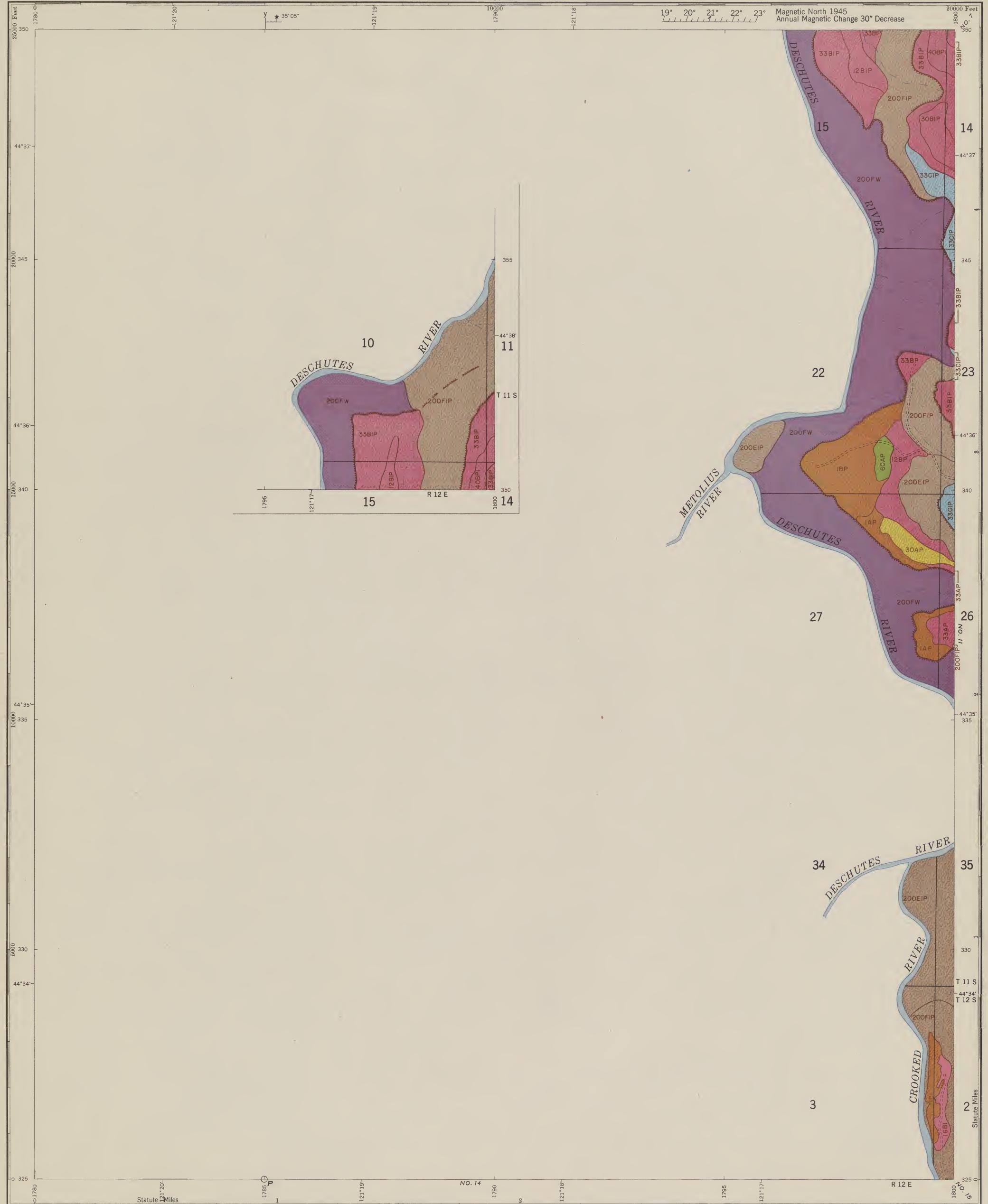
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OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



DESCHUTES IRRIGATION PROJECT

Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

0.0625

1. Aerial type (MAX depth 100 ft. C = 2000 ft. percent to 12. percent)

2. Sheet erosion. 25 percent to 75 percent. 3. Wind erosion. 25 percent to 75 percent removed by wind.

SOILS

LIGHT AND COARSE GRAINED SOIL
WITH LIGHTER COLORED HORSEHOLES OVER
BASES OF SIMILAR MATERIAL

- 1. Dark grayish brown to black
- 2. Brownish tan to yellowish tan
- 3. Tan to light brown
- 4. Light tan to yellow
- 5. Light brown to tan
- 6. Tan to light brown
- 7. Light tan to yellow
- 8. Tan to light brown
- 9. Light tan to yellow

LIGHT AND COARSE GRAINED SOIL
WITH DARKER COLORED HORSEHOLES OVER
BASES OF SIMILAR MATERIAL

- 10. Tan to light brown to yellowish tan
- 11. Tan to light brown to yellowish tan
- 12. Tan to light brown to yellowish tan
- 13. Tan to light brown to yellowish tan
- 14. Tan to light brown to yellowish tan
- 15. Tan to light brown to yellowish tan
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- 18. Tan to light brown to yellowish tan
- 19. Tan to light brown to yellowish tan
- 20. Tan to light brown to yellowish tan
- 21. Tan to light brown to yellowish tan

EROSION

SOIL EROSION

- 1. Light tan to yellowish tan to black
- 2. Tan to light brown to yellowish tan
- 3. Tan to light brown to yellowish tan
- 4. Tan to light brown to yellowish tan

WATER EROSION

- 5. Tan to light brown to yellowish tan
- 6. Tan to light brown to yellowish tan
- 7. Tan to light brown to yellowish tan
- 8. Tan to light brown to yellowish tan

WIND EROSION

- 9. Tan to light brown to yellowish tan
- 10. Tan to light brown to yellowish tan
- 11. Tan to light brown to yellowish tan

MISCELLANEOUS

- 12. Tan to light brown to yellowish tan
- 13. Tan to light brown to yellowish tan
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- 20. Tan to light brown to yellowish tan
- 21. Tan to light brown to yellowish tan

LAND USE

(Percent of area)

Cultivated land (crops, pasture, orchards, vineyards, etc.)

Forest land (timber, brush, shrubs, grasses, vines, etc.)

Wetland (swamps, marshes, bogs, fens, swales, etc.)

Water bodies (rivers, lakes, reservoirs, ponds, etc.)

Urban areas (towns, cities, villages, etc.)

Rangeland (pasture, grazing, rangelands, etc.)

Other land (roads, trails, paths, etc.)

Reserves (forests, parks, preserves, etc.)

Other (mines, quarries, industrial sites, etc.)

Uncultivated land (scrub, brush, grass, etc.)

Desert (bare ground, rock, sand, etc.)

Swamps (wetlands, marshes, bogs, fens, etc.)

Marshes (wetlands, marshes, bogs, fens, etc.)

Sinks (wetlands, marshes, bogs, fens, etc.)

Streams (rivers, creeks, brooks, etc.)

Wells (water sources, wells, springs, etc.)

Ponds (reservoirs, ponds, lakes, etc.)

Soils (soil types, soil profiles, etc.)

Landforms (ridges, slopes, depressions, etc.)

Boundaries (property lines, roads, etc.)

Monuments (survey markers, monuments, etc.)

Conveyances (canals, ditches, etc.)

Drainage (drainage systems, etc.)

Structures (buildings, roads, bridges, etc.)

Other (mines, quarries, industrial sites, etc.)

Reserves (forests, parks, preserves, etc.)

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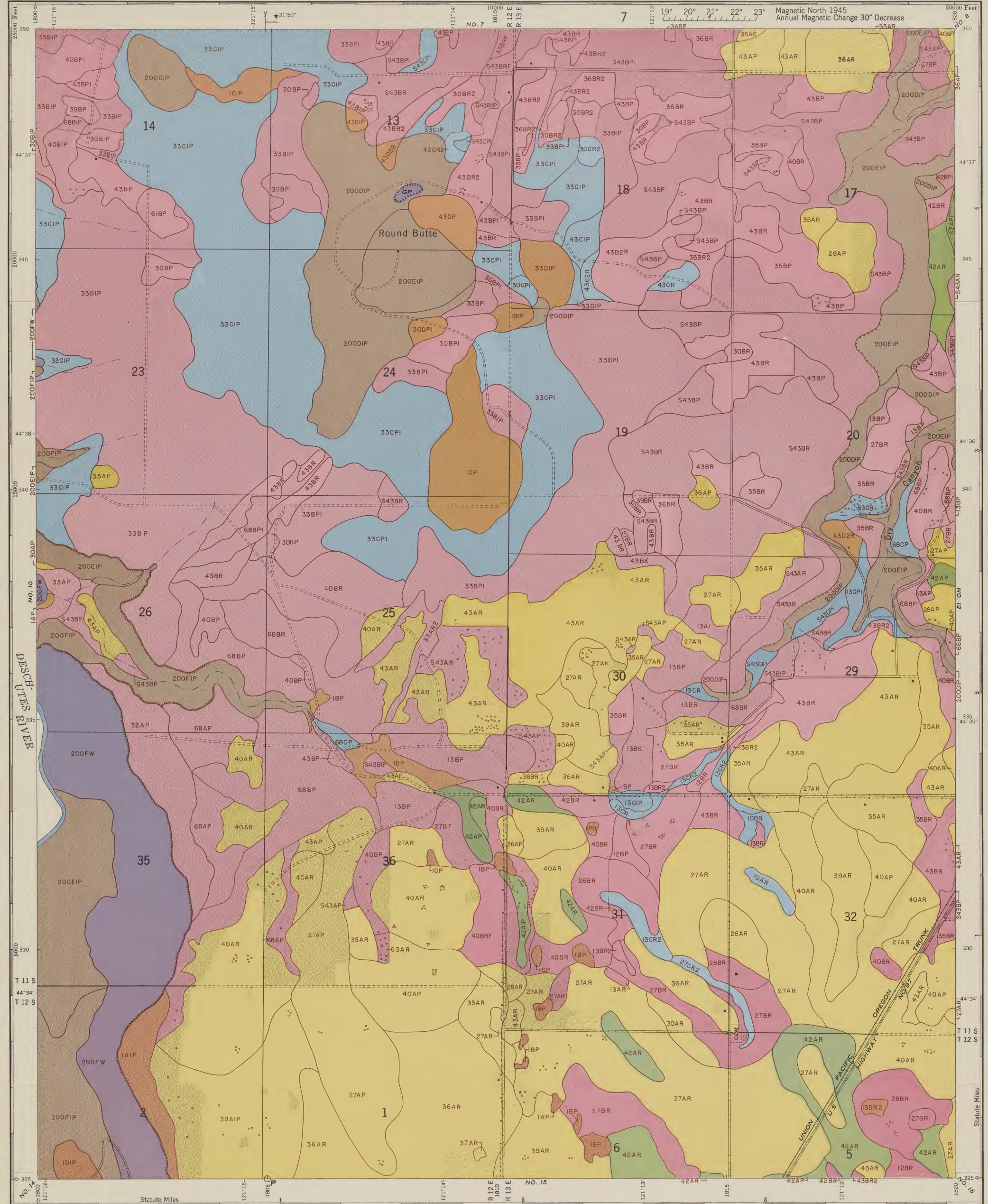
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OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

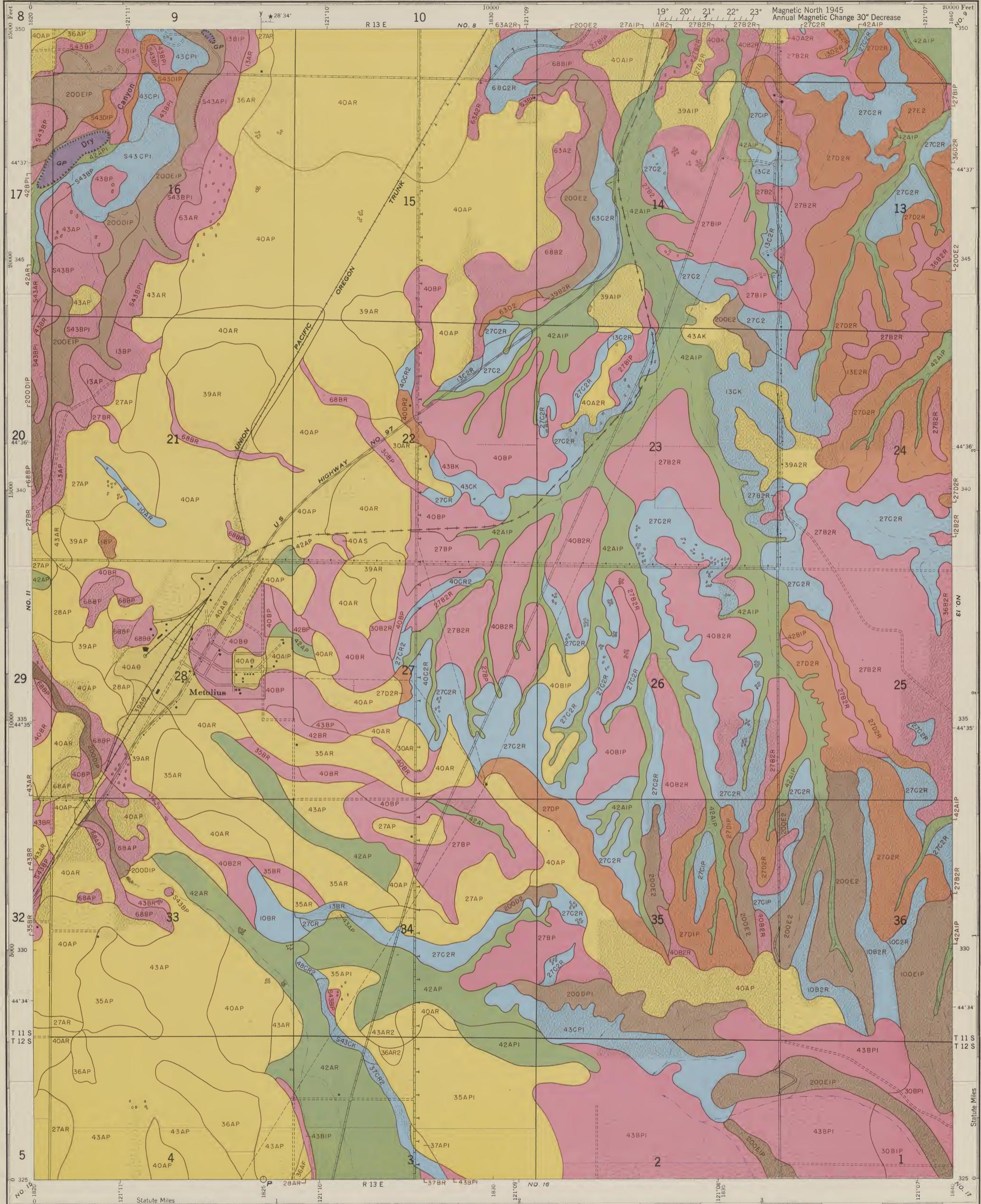
SUITABLE FOR OCCASIONAL CULTIVATION

NOT SUITABLE FOR CULTIVATION

**NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE**

I-Nearly level, deep, permeable soils having no special limitations in use.	II-Nearly level, moderately deep, permeable soils having minor limitations in use.	III-Moderately deep soils with stone, slope or texture limitations.	IV-Shallow, droughty or moderately sloping soils limited to pasture use.	V-Sloping, very stony lands suited for range, having minor conservation needs.	VI-Steep, very stony lands suited for range, having major conservation needs.	VII-Very steep, stony or droughty lands, essentially non-productive.
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OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

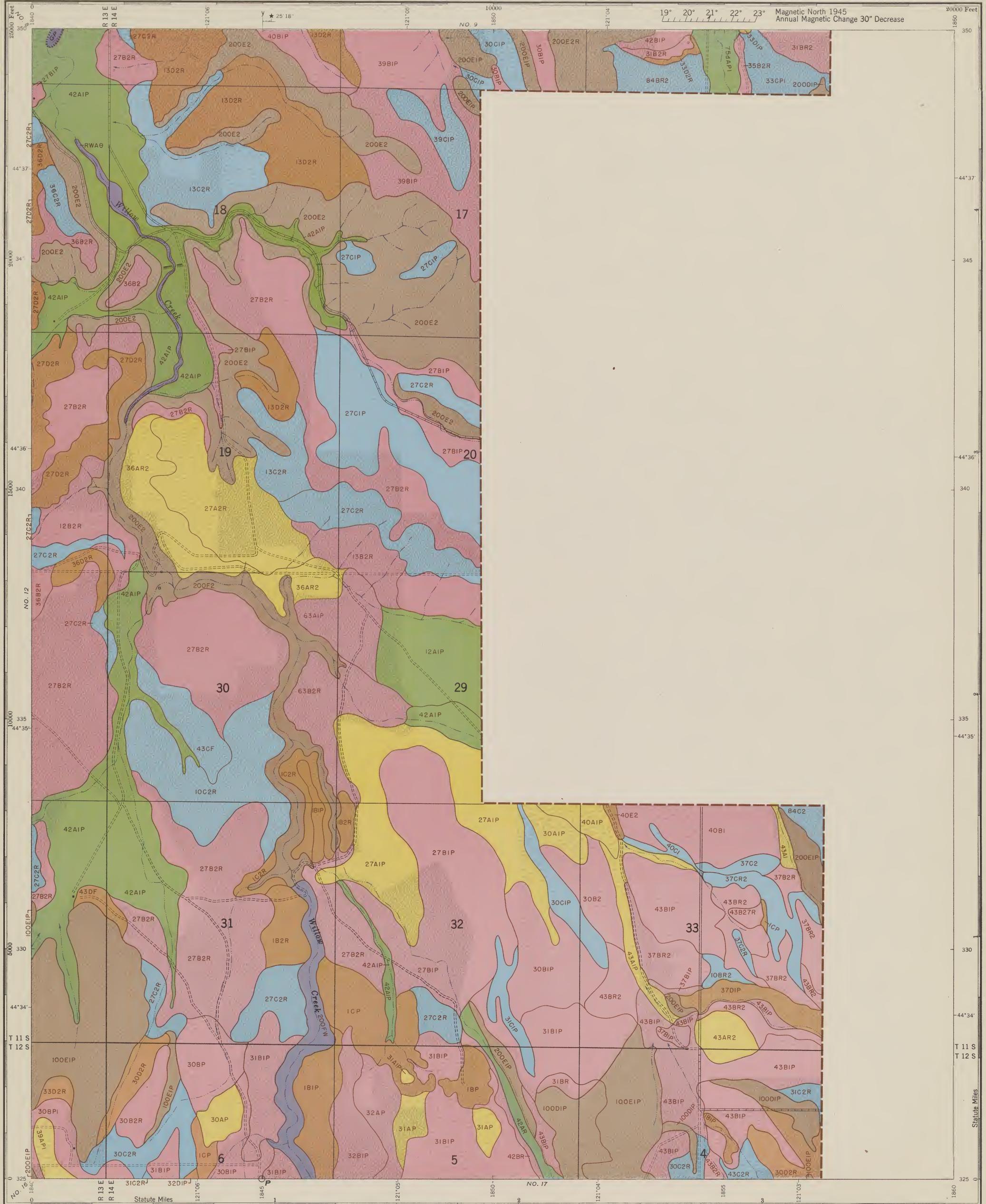
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NOT SUITABLE FOR CULTIVATION

**NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE**

- | | | | | | | |
|---|--|---|--|--|---|--|
| I-Nearly level, deep, permeable soils having no special limitations in use. | II-Nearly level, moderately deep, permeable soils having minor limitations in use. | III-Moderately deep soils with stone, slope or texture limitations. | IV-Shallow, droughty or moderately sloping soils limited to pasture use. | V-Sloping, very stony lands suited for range, having minor conservation needs. | VI-Steep, very stony lands suited for range, having major conservation needs. | VII-Very steep, stony or droughty lands, essentially non-productive. |
|---|--|---|--|--|---|--|

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

SUITABLE FOR OCCASIONAL
CULTIVATION

NOT SUITABLE FOR CULTIVATION

NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE

I-Nearly level, deep, permeable soils having no special limitations in use.

II-Nearly level, moderately deep, permeable soils having minor limitations in use.

III-Moderately deep soils with stone, slope or texture limitations.

IV-Shallow, droughty or moderately sloping soils limited to pasture use.

V-Sloping, very stony lands suited for range, having minor conservation needs.

VI-Sloping, very stony lands suited for range, having major conservation needs.

VII-Very steep, stony or droughty lands, essentially non-productive.

DESCHUTES IRRIGATION PROJECT

Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

27C2R

27-Soil type, Madras sandy loam; C-Slope, C percent to 12 percent
2-Sheet erosion, 25 percent to 75 percent lost; R-Wind erosion, 25 percent to 75 percent removed by wind

SOILS

LIGHT AND DENSE TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIAL

- 2 - Deschutes sandy loam, shallow phase
- 3 - Deschutes sandy loam
- 4 - Deschutes loamy loam
- 5 - Deschutes loamy loam, deep phase
- 6 - Deschutes loamy loam
- 7 - Deschutes loamy loam
- 8 - Deschutes loamy loam
- 5A - Deschutes sandy loam

LIGHT AND MEDIUM TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER MODERATELY CONSOLIDATED MATERIALS

- 10 - Madras sandy loam, shallow phase
- 11 - Madras sandy loam, deep phase
- 12 - Madras loamy loam, deep phase
- 13 - Deschutes loamy loam, deep phase
- 14 - Deschutes loamy loam
- 15 - Deschutes loamy loam
- 16 - Deschutes loamy loam
- 17 - Deschutes loamy loam
- 18 - Deschutes loamy loam
- 19 - Deschutes loamy loam
- 20 - Deschutes loamy loam
- 21 - Deschutes loamy loam
- 22 - Deschutes loamy loam
- 23 - Deschutes loamy loam
- 24 - Deschutes loamy loam

EROSION

SHEET EROSION

- 1 - Less than 25 percent of the surface removed
- 2 - 25 percent to 75 percent of the surface removed
- 3 - 75 percent to 100 percent of the surface removed
- 4 - 10 to 15 percent of hill bottom land
- 5 - 15 percent to 50 percent of the hill bottom land

GULLY EROSION

- 7 - Occasional surface gullies
- 8 - Occasional gully incision by farm machinery
- 9 - Shallow gullies less than 100 feet apart, more than 3 feet wide
- 10 - Uncrossable gullies less than 100 feet apart, material of more than 3 percent

WIND EROSION

- 11 - Up to 25 percent of surface removed
- 12 - 25 percent to 75 percent of surface removed
- 13 - 75 percent to 100 percent of surface removed

WIND DEPOSITS

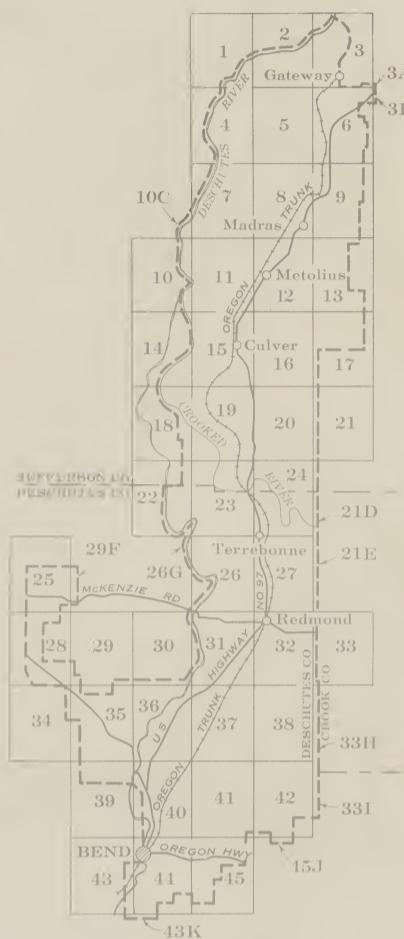
- 14 - Accumulation: 0 inches to 6 inches deep level
- 15 - Accumulation: 6 inches to 12 inches deep level
- 16 - Accumulation: 12 inches to 24 inches deep level
- 17 - Line accumulations from surface to infinite within boundary

MISCELLANEOUS

- 18 - Normal erosion
- 19 - Not accelerated erosion
- 20 - Unnatural-induced erosion (farm machinery, other tools)

EXPLANATION OF SYMBOL

INDEX



USE DIAGRAM ONLY TO OBTAIN NUMERICAL VALUES
TO DETERMINE MAGNETIC NORTH LINE, CONNECT THE
PIVOT POINT 'P' ON THE SOUTH EDGE OF THE MAP
WITH THE ARROW AS SHOWN ON THE DEGREE
SCALE AT THE NORTH EDGE OF THE MAP.

Base from U.S.G.S. quad. angles. Revisited & base
and conservation levels compiled by Soil Conservation
Service from aerial photographs. Labeled "A" on map.
Grid based upon Oregon System (1 mile square)
of plane coordinates with four three shifts of grid numbers
numbered. Polygons projected by marginal scales.

LAND USE

Reproduced in gray

Cultivated land, annual and perennial crops such
as grain, row-crops, 100% cover and grasses



Rangeland, land having extensive but non-uniform
annual prairie, mesquite, brush, scrub, or trees



Forests and timberland



Wooded: Juniper or Pinyon pine

Timber

Farmland and orchards

SLOPE

DOMINANT PERCENT

A	0 to 3	B	4 to 7	C	8 to 12	D	E	F	G
---	--------	---	--------	---	---------	---	---	---	---

DOMINANT PERCENT

13 to 20	21 to 35	36 and more
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GEOGRAPHIC SYMBOLS

WORKS AND STRUCTURES

- Roads - Hard-surfaced
- Roads - Semihard-surfaced
- Dirt (good motor)
- Dirt (poor motor or private)
- Bridge
- Culvert
- Fence
- Railroads - Single track

WORKS AND STRUCTURES

- Railroads - Abandoned
- Bridge
- Grade crossing
- Railroad under
- Railroad over
- Tunnels
- Buildings in general
- Church
- School

WORKS AND STRUCTURES

- Tanks
- Power line
- Telephone line
- Pole line
- Cemeteries
- Dams
- Gravel pit
- Mine quarry

BOUNDARIES, MARKS, AND MONUMENTS

- County
- Township
- Section
- City
- CONSERVATION SURVEY DATA
(in brown)
- Survey boundary
- Story areas
- Rock outcrops
- Escarpment

DRAINAGE (in blue)

- Permanent streams
- Intermittent streams
- Canals or ditches
- Canal funnel
- Water tanks
- Ponds/meadows
- Springs
- Swales
- Mars

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



DESCHUTES IRRIGATION PROJECT

Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

27CCR

17-Soil type, Madras sandy loam, C-Slope, 8 percent to 12 percent
2-Sheet erosion, 25 percent to 75 percent incl. R-Wind erosion, 25 percent to 75 percent illustrated by wind.

SOILS

LIGHT AND COARSE TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIAL

- 2 - Deschutes sandy loam, shallow phase
- 3 - Deschutes sandy loam
- 43 - Era sandy loam
- 17 - Deschutes loamy sand
- 4 - Deschutes loamy loam, deep phase
- 5 - Deschutes loamy loam
- 19 - Deschutes loamy loam
- 543 - Era loamy loam

LIGHT AND MEDIUM TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER MODERATELY CONSOLIDATED MATERIAL

- 10 - Malheur sandy loam, shallow phase
- 10c - Deschutes sandy loam, shallow phase
- 12 - Madras sandy loam, deep phase
- 12c - Deschutes sandy loam, deep phase
- 13 - Madras sandy loam
- 13c - Deschutes silty loamy loam
- 90 - Deschutes silty loamy loam
- 26 - Deschutes loamy sand
- 10 - Deschutes loamy sand
- 24 - Deschutes loamy sand

27 - Madras sandy loam

11c - Deschutes sandy loam

25 - Deschutes sandy loam

29 - Madras loam

LIGHT TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER LOOSE COARSE MATERIALS

- 16 - Madras sandy loam
- 47 - Deschutes loamy coarse sand
- 48 - Deschutes loamy loamy loam
- 55 - Deschutes loamy loamy over riverwash

LIGHT TO HEAVY TEXTURED SOILS WITH HEAVY TEXTURED SUBSOILS OVER MIXED MODERATELY CONSOLIDATED MATERIALS

- 30 - Lamont loam
- 31 - Lamont sandy clay loam
- 32 - Lamont loamy sandy clay loam
- 33 - Lamont loamy loam
- 34 - Lamont silty clay loam, shallow phase
- 35 - Lamont loam, shallow phase

LIGHT TEXTURED SOIL WITH DEEP, LIGHT TEXTURED SUBSOIL OVER PERMEABLE MATERIALS

- 42 - Metolius sandy loam
- 50 - Metolius sandy loam
- 51 - Metolius fine sandy loam

LIGHT TO HEAVY TEXTURED SOIL WITH MODERATELY HEAVY TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIALS

- 35 - Agency sandy loam
- 37 - Agency gravelly loam
- 70 - Gem loam
- 36 - Agency loam
- 63 - Agency loamy loam
- 71 - Gem clay loam
- 73 - Gem clay loam, shallow phase

LIGHT TO HEAVY TEXTURED SOIL WITH HEAVY TEXTURED SUBSOILS OVER LIME HARDPAN

- 39 - Malheur loam
- 40 - Malheur loamy loam
- 68 - Madras loamy loam
- 75 - Malheur clay loam

LIGHT TEXTURED SOIL WITH DEEP, LIGHT TEXTURED SUBSOIL OVER FERMEABLE MATERIALS

- 42 - Metolius sandy loam
- 50 - Metolius sandy loam
- 51 - Metolius fine sandy loam

- 62 - Metolius sandy loam
- 63 - Metolius loamy sand
- 64 - Lamont sandy loam

POORLY DRAINED, LIGHT TEXTURED SURFACE SOIL WITH HEAVY TEXTURED SUBSOIL OVER BASALT OR MIXED CONSOLIDATED MATERIALS

- 65 - Odem clay loam
- 52 - Odem sandy loam

LIGHT TO HEAVY TEXTURED SOIL WITH HEAVY TEXTURED SUBSOILS MODERATELY CONSOLIDATED MATERIALS

- 74 - Reedsport loam
- 75 - Reedsport sandy loam
- 75a - Reedsport sandy loam, deep, coarse
- 76 - Redmond clay loam

MISCELLANEOUS SOILS

- 10N - Rough broken land
- 20N - Rough stony and
- RW - Riverwash
- 91 - Volcanic ash
- 1 - Scoriae

EROSION

SHEET EROSION

- 1 - Less than 25 percent of the surface soil lost
- 2 - 25 percent to 75 percent of the surface soil lost
- 3 - 75 percent to 100 percent of the surface soil lost or up to 25 percent in the B horizon lost
- 4 - 25 percent to 50 percent of the B horizon lost

GULLY EROSION

- 7 - Occasional shallow gullies
- C - Occasional gullies unconnected to farm machinery
- B - Shallow gullies less than 100 feet apart, mostly or more than 2 per acre
- G - Unconnected gullies more than 100 feet apart, mostly or more than 3 per acre

WIND EROSION

- P - Up to 25 percent of surface soil removed
- R - 25 percent to 75 percent of surface soil removed
- S - 75 percent to 100 percent of surface soil removed

WIND DEPOSITS

- F - Accumulations 0 inches to 6 inches deep, level
- H - Accumulations 6 inches to 12 inches deep, hummocky
- K - Accumulations 6 inches to 12 inches deep, hummocky with horizontal boundaries

MISCELLANEOUS

- W - Normal erosion
- N - No accumulated erosion
- O - Open cultivated areas (flooded, urban areas)

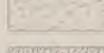
LAND USE

Reproduced in 1949

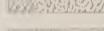
Cultivated land: annual and perennial crops such as grain, row crops, alfalfa, beet and grasses



Rough land: Land formerly cultivated but now abandoned or unused areas, seeded with grasses or brush



Rangeland: Annual or perennial grasses or sagebrush



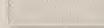
Woodland: Juniper & Ponderosa pine



Shrubland



Waterfowl and waterfowl areas



SLOPE

Dominant Percent

A 0 to 3

B 4 to 7

C 8 to 12

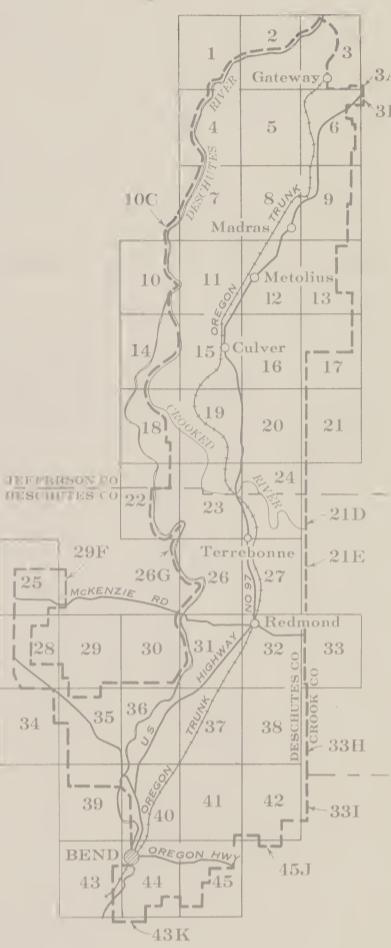
Dominant Percent

13 to 20

21 to 35

36 and over

INDEX



Admiralty Map Distribution 1949

Annual Report, Class 1, 1st Year

LINE DIAGRAM ONLY TO OBTAIN NUMERICAL VALUES.
TO DETERMINE MAGNETIC NORTH LINE, CONNECT THE PIVOT POINT 'P' ON THE SOUTH EDGE OF THE MAP WITH THE ARROW AS SHOWN ON THE DEGREE SCALE AT THE NORTH EDGE OF THE MAP.

Scale from U.S.G.S. triangulation, Revision 1, 1949

and conservation service compiled by Soil Conservation Service from aerial photographs. Laminated projection.

State Soil Survey Board, Oregon (1949)

Line accumulation with total thickness of 1/2 inch per centimeter. Polymethyl methacrylate (Perspex) plate.

Projected projection indicated by small tick marks.

GEOGRAPHIC SYMBOLS

WORKS AND STRUCTURES

Roads: Hard-surfaced

Semi-hard-surfaced

Dirt (good motor

Dirt (poor motor

or private)

Bridge

Grade crossing

Railroad under

Railroad over

Tunnel

Buildings in general

Quarry

Single track

WORKS AND STRUCTURES

Railroads: Abandoned

Bridge

Grade crossing

Railroad under

Railroad over

Tunnel

Buildings in general

Quarry

Single track

WORKS AND STRUCTURES

Tanks

Power line

Telephone line

Pipe line

Cemeteries

Dump

Gavel pit

Mud quarry

BOUNDARIES, MARKS, AND MONUMENTS

County

Township

Section

City

CONSERVATION SURVEY DATA (in brown)

Survey boundary

Survey area

Rock outcrop

Embankment

DRAINAGE (in blue)

Perennial streams

Intermittent streams

Ground ditches

Canal tunnel

Water tanks

Well

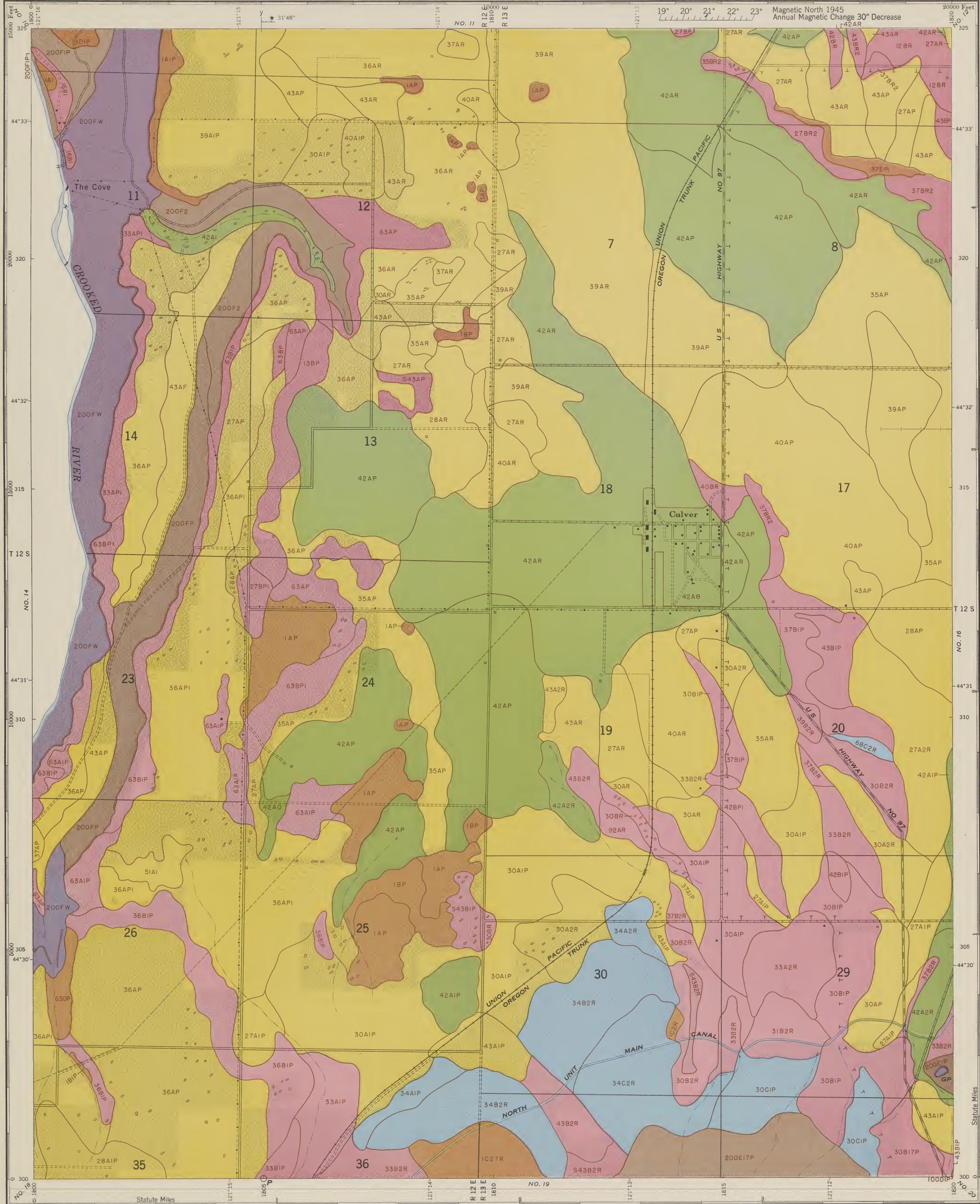
Ponds, reservoirs

Spring

Sinks

Marsh

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

SUITABLE FOR OCCASIONAL
CULTIVATION

NOT SUITABLE FOR CULTIVATION

NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE

I-Nearly level, deep, permeable soils having no special limitations in use.

II-Nearly level, moderately deep, permeable soils having minor limitations in use.

III-Moderately deep soils with stone, slope or texture limitations.

IV-Shallow, dry, or moderately sloping soils limited to pasture use.

V-Sloping, very stony lands suited for range, having minor conservation needs.

VI-Steep, very stony lands suited for range, having major conservation needs.

VII-Very steep, stony or dry lands, essentially non-productive.

DESCHUTES IRRIGATION PROJECT

Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

27C2R

27 Soil type Madras loamy loam, 10-15 slope, 8 percent to 12 percent
2-Sheet erosion, 25 percent to 75 percent (Int) R-Wind erosion, 25 percent to 75 percent removed by wind.

SOILS

LIGHT AND COARSE TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIAL

- 2-Deschutes sandy loam, shallow phase
- 3-Deschutes sandy loam
- 43-Deschutes loamy sand
- 4-Deschutes loamy loam, deep phase
- 5-Deschutes clayey loam
- 19-Deschutes loamy loam
- 343-Era rocky sandy loam

LIGHT AND MEDIUM TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER MODERATELY CONSOLIDATED MATERIAL

- 10-Malhe loamy loam, shallow phase
- 10c-Deschutes loamy loam, shallow phase
- 12-Malhe sandy loam, deep phase
- 12c-Deschutes loamy loam, deep phase
- 13-Malhe loamy sandy loam
- 13c-Deschutes loamy sandy loam
- 20-Deschutes loamy sand
- 26-Deschutes loamy sand
- 92-Deschutes loamy sand
- 24-Deschutes loamy sand

EROSION

SHEET EROSION

- 1-Less than 25 percent of the surface area lost
- 2-25 percent to 75 percent of the surface soil lost
- 3-75 percent to 100 percent of the surface soil lost or up to 75 percent of the B horizon soil
- 4-25 percent to 50 percent of the B horizon soil

GULLY EROSION

- 7-Occasional shallow gullies
- 20-Occasional gullies, susceptible to long term incision
- 8-Shallow gullies less than 100 feet apart laterally or more than 3 feet apart
- 30-Unincisable gullies less than 100 feet apart laterally or more than 3 feet apart

WIND EROSION

- P-Up to 25 percent of surface soil removed
- 6-25 percent to 75 percent of surface soil removed
- 5-75 percent to 100 percent of surface soil removed

WIND DEPOSITS

- F-Accumulations 2 inches to 6 inches deep, loose
- H-Accumulations 6 inches to 12 inches deep, level
- K-Accumulations 6 inches to 12 inches deep, firm
- Line accumulations too faint to measure within boundaries

MISCELLANEOUS

- W-Normal erosion
- O-No accelerated erosion
- B-Unclassified erosion (irregular, urban areas)

27

- 27-Malhe sandy loam
- 11c-Deschutes sandy loam
- 35-Deschutes loamy loam
- 28-Malhe loam

LIGHT TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER LOOSE COARSE MATERIALS

- 16-Malhe loamy loam
- 47-Deschutes loamy coarse sand
- 46-Deschutes loamy sand
- 49-Deschutes coarse loamy loam
- 55-Deschutes loamy sand over gravel

LIGHT TO HEAVY TEXTURED SOILS WITH HEAVY TEXTURED SUBSOILS OVER MIXED MODERATELY CONSOLIDATED MATERIALS

- 30-Lemonica loam
- 31-Lemonica loamy clay loam
- 32-Lemonica loamy sandy loam
- 33-Lemonica loamy clay loam, shallow phase
- 34-Lemonica loam, shallow phase

LIGHT TO HEAVY TEXTURED SOILS WITH HEAVY TEXTURED SUBSOILS OVER LIME HARDPAN

- 39-Malhe loam
- 40-Malhe loamy loam
- 48-Malhe loamy loam
- 50-Malhe loam

LIGHT TEXTURED SOIL WITH DEEP, LIGHT TEXTURED SUBSOIL OVER PERMEABLE MATERIALS

- 42-Melches loamy loam
- 50-Melches sandy loam
- 51-Melches fine loamy loam

LIGHT TO HEAVY TEXTURED SOIL WITH MODERATELY HEAVY TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIALS

- 35-Rogers loamy loam
- 37-Agency gravelly loam
- 70-Gam loam
- 36-Agency loam
- 63-Loamy stony loam
- 73-Tam clay loam
- 74-Tam clay loam, shallow phase

LIGHT TO HEAVY TEXTURED SOILS WITH HEAVY TEXTURED SUBSOILS MODERATELY CONSOLIDATED MATERIALS

- 51-Odin clay loam
- 52-Odin sandy loam

HEAVILY DRAINED, LIGHT TEXTURED SURFACE SOIL WITH HEAVY TEXTURED SUBSOIL OVER BASALT OR MIXED CONSOLIDATED MATERIALS

- 74-Bethel loam
- 75-Redmond loamy loam
- 75a-Redmond loamy loam, deep phase
- 76-Redmond clay loam

MISCELLANEOUS SOILS

- 100-Rough broken land
- 200-Rough broken land
- RW-Riverbed
- 91-Volcanic ash
- 1-Scabland

LAND USE

Reproduced in gray

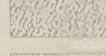
Cultivated land, annual and perennial crops such as grain, row crops, flax, clover, and grasses



Pasture land, land temporarily fallowed but more abundant, or annual grasses, crested wheat grasses, or brush



Rangeland, mixed or dominant bunch grasses



Woodland, timber or brushwood pastures



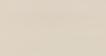
Forests and timber land



Urban land



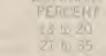
Residential and institutional land



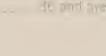
Industrial land



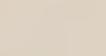
Commercial land



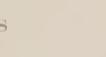
Other land



Water bodies



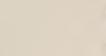
Drainage



Streams



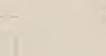
Wetlands



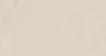
Canals



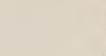
Water tanks



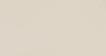
Reservoirs



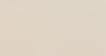
Swamps



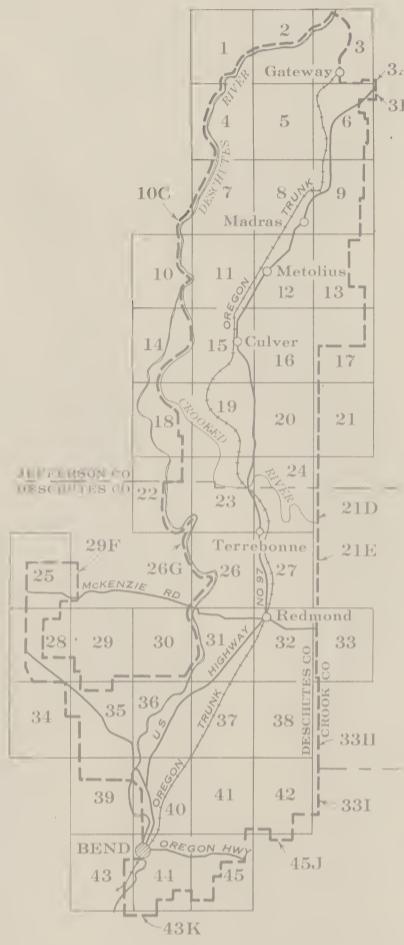
Marshes



Bluffs



INDEX



USE DIAGRAM ONLY TO OBTAIN NUMERICAL VALUES.
TO DETERMINE MAGNETIC NORTH LINE CONNECT THE
RIGHT POINT 'P' ON THE SOUTH EDGE OF THE MAP
WITH THE ARROW AS SHOWN ON THE DEGREE
SCALE AT THE NORTH EDGE OF THE MAP.

Base from U.S.G.S. Quadrangles, Revision 10 base
and conservation survey compiled by Soil Conservation Service.

Service from aerial photographs. Landmark positions

U.S. Geological Survey Oregon, Astoria, (1966)

Ordnance photographs with 1:250,000 scale of ground features

and 1:100,000 scale of ground features by contour lines.

GEOGRAPHIC SYMBOLS

WORKS AND STRUCTURES

- Roads-Hard-surfaced
- Semihard-surfaced
- Dirt good motor
- Dirt poor motor or private
- Bridge
- Canal
- Post
- Railroads-Single track

WORKS AND STRUCTURES

- Railroads-Abandoned
- Rails
- Grade crossing
- Railroad under
- Railroad over
- Tunnels
- Buildings-in general
- Church
- School

WORKS AND STRUCTURES

- Tables
- Plywood line
- Telephone line
- Pipe line
- Cemeteries
- Dams
- Gravel pit
- Mine quarry

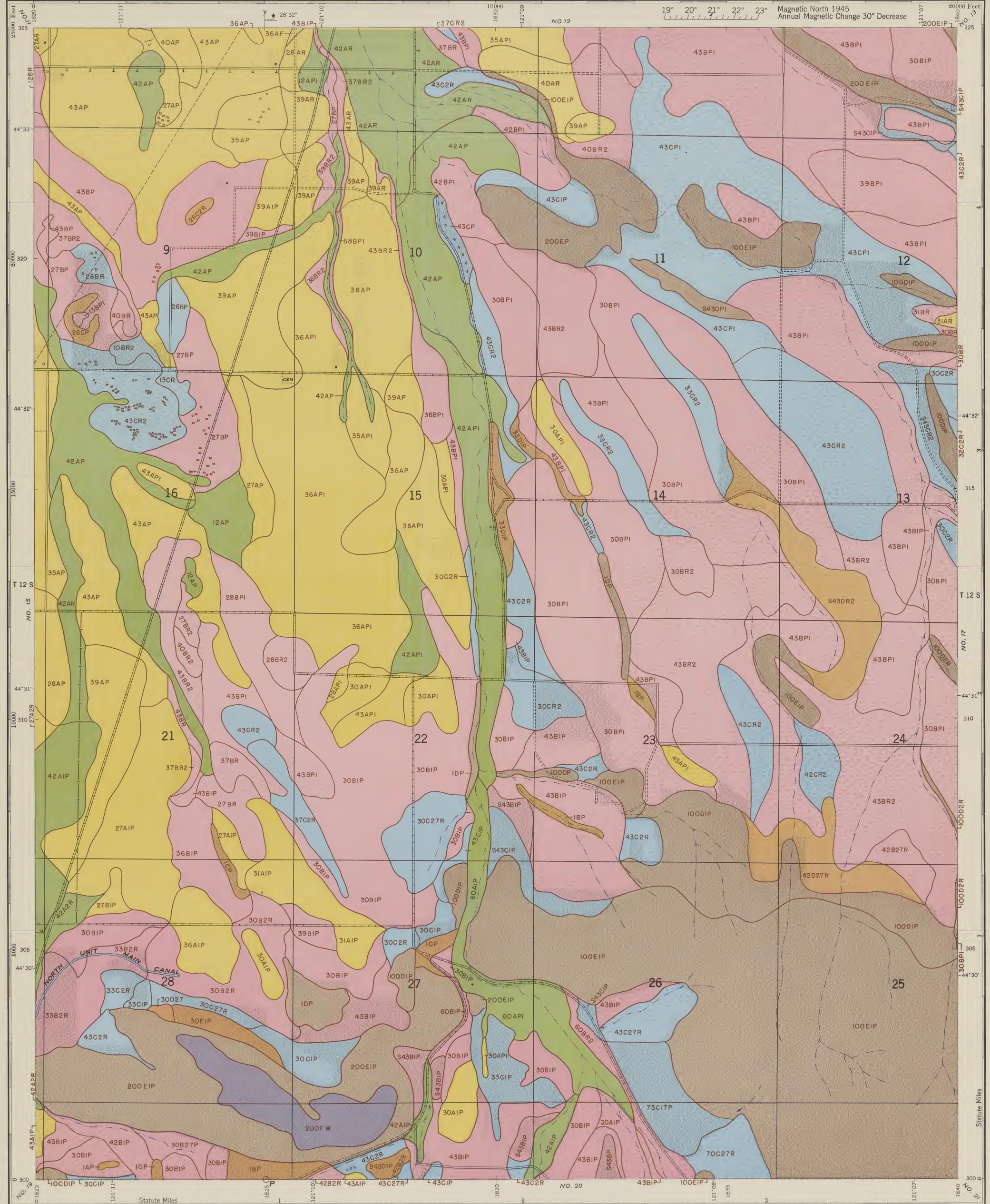
BOUNDARIES, MARKS, AND MONUMENTS

- Counts
- Township
- Section
- City
- CONSERVATION SURVEY DATA (in brown)
- Survey Boundary
- Story areas (B&G)
- Rock outcrops
- Equipment

DRAINAGE

- (in blue)
- Perennial streams
- Intermittent streams
- Canals or ditches
- Canal tunnel
- Water tanks
- Reservoirs
- Springs
- Marshes

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

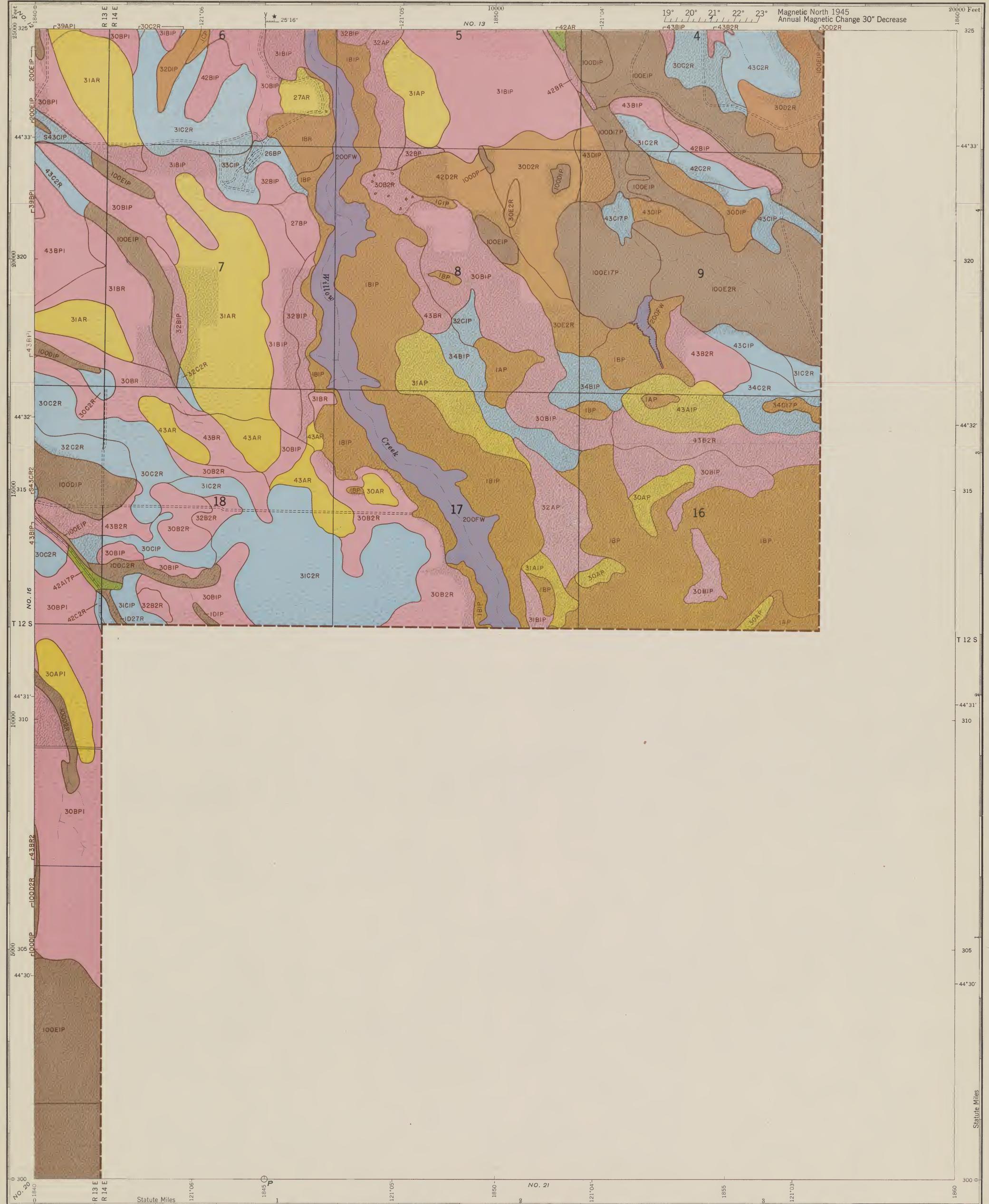
SUITABLE FOR OCCASIONAL CULTIVATION

NOT SUITABLE FOR CULTIVATION

**NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE**

- I-Nearly level, deep, permeable soils having no special limitations in use. II-Nearly level, moderately deep, permeable soils having minor limitations in use. III-Moderately deep soils with stone, slope or texture limitations. IV-Shallow, droughty or moderately sloping soils limited to pasture use. VI-Sloping, very stony lands suited for range, having minor conservation needs. VII-Steep, very stony lands suited for range, having major conservation needs. VIII-Very steep, stony or droughty lands; essentially non-productive.

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

SUITABLE FOR OCCASIONAL CULTIVATION

NOT SUITABLE FOR CULTIVATION

**NOT SUITABLE FOR CULTIVATION
RANGE OR SIMILAR USE**

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DESCHUTES IRRIGATION PROJECT

Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

27C2R

27-Soil type Madras sandy loam. C: Slope, 8 percent to 12 percent.
2-Sheet erosion, 25 percent to 75 percent lost. R-Wind erosion, 25 percent to 75 percent removed by wind.

SOILS

LIGHT AND COARSE TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIAL

- 2 - Deschutes sandy loam, shallow phase
- 3 - Deschutes sandy loam
- 43 - Era sandy loam
- L3 - Deschutes loamy sand
- 4 - Deschutes sandy loam, deep phase
- 5 - Deschutes stony sandy loam
- 19 - Deschutes loamy loam
- S43 - Era stony sandy loam

LIGHT AND MEDIUM TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER MODERATELY CONSOLIDATED MATERIAL

- 11 - Madras sandy loam, shallow phase
- 10c - Deschutes sandy loam, shallow phase
- 12 - Madras sandy loam, deep phase
- 12c - Deschutes sandy loam, deep phase
- 13 - Madras stony sandy loam
- 13c - Deschutes stony sandy loam
- 90 - Deschutes stony loamy loam
- 26 - Deschutes loamy sand
- 9c - Deschutes loamy sand
- 24 - Deschutes loamy sand

EROSION

SHEET EROSION

- 1 - Less than 25 percent of the surface soil lost
- 2 - 25 percent to 75 percent of the surface soil lost
- 3 - 75 percent to 100 percent of the surface soil lost or up to 25 percent of the B horizon lost
- 4 - 25 percent to 50 percent of the B horizon lost

GULLY EROSION

- 2 - Occasional shallow gullies
- ② - Occasional gullies impassable by farm machinery
- B - Shallow gullies less than 100 feet apart laterally or more than 3 per acre
- ③ - Uncrossable gullies less than 100 feet apart laterally or more than 3 per acre

WIND EROSION

- P - Up to 25 percent of surface soil removed
- R - 25 percent to 75 percent of surface soil removed
- S - 75 percent to 100 percent of surface soil removed

WIND DEPOSITS

- F - Accumulations 6 inches to 6 inches deep, level
- H - Accumulations 6 inches to 12 inches deep, level
- K - Accumulations 6 inches to 12 inches deep, hummocky
- — — Line accumulations too narrow to include within boundaries

MISCELLANEOUS

- W - Normal erosion
- O - N - Accelerated erosion
- U - Undifferentiated erosion (farmstead, urban areas)

EXPLANATION OF SYMBOL

27C2R

27-Soil type Madras sandy loam. C: Slope, 8 percent to 12 percent.
2-Sheet erosion, 25 percent to 75 percent lost. R-Wind erosion, 25 percent to 75 percent removed by wind.

SOILS

LIGHT TO HEAVY TEXTURED SOIL WITH MODERATELY HEAVY TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIALS

- 35 - Agency sandy loam
- 37 - Agency gravelly loam
- 70 - Gem loam
- 36 - Agency loam
- 63 - Agency stony loam
- 71 - Gem clay loam
- 73 - Gem clay loam, shallow phase

LIGHT TO HEAVY TEXTURED SOILS WITH HEAVY TEXTURED SUBSOILS OVER LIME HAPPIAN

- 39 - Madras loam
- 40 - Madras sandy loam
- 48 - Madras loamy loam
- 85 - Madras clay loam

LIGHT TEXTURED SOIL WITH DEEP LIGHT TEXTURED SUBSOIL OVER PERMEABLE MATERIALS

- 42 - Metolius sandy loam
- 60 - Metolius loamy loam
- 61 - Metolius fine sandy loam

62 - Metolius sandy loam

92 - Metolius loamy sand

6X - Laidlaw sandy loam

POORLY DRAINED LIGHT TEXTURED SURFACE SOIL WITH HEAVY TEXTURED SUBSOIL OVER BASALT OR MIXED CONSOLIDATED MATERIALS

- 51 - Odin clay loam
- 52 - Ojin sandy loam

LIGHT TO HEAVY TEXTURED SOIL WITH HEAVY TEXTURED SUBSOILS MODERATELY CONSOLIDATED MATERIALS

- 74 - Redmond loam
- 75 - Redmond sandy loam
- 75d - Redmond sandy loam, deep phase
- 76 - Redmond clay loam

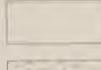
MISCELLANEOUS SOILS

- 100 - Rough broken land
- 200 - Rough stony land
- RW - Riverwash
- 91 - Volcanic ash
- 1 - Soilbank

LAND USE

Reproduced in gray

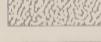
Cultivated land, annual and perennial crops such as grain, row crops, alfalfa, clover and grasses



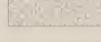
Rangeland: Land formerly cultivated but now unimproved, or annual grasses, crested wheat grasses, or browse



Rangeland: Annual or perennial grasses or sagebrush



Woodland: Juniper or Ponderosa pine



Idle land



Farmstead and urban areas

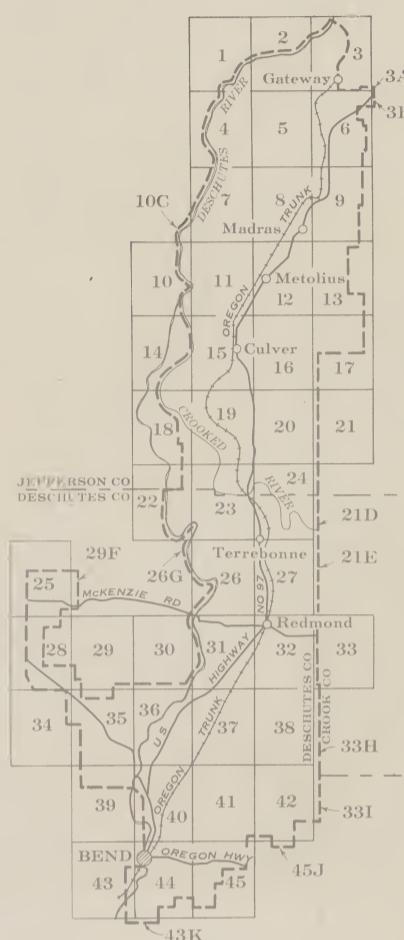


SLOPE

	DOMINANT PERCENT		DOMINANT PERCENT
A	0 to 3	D	13 to 20
B	4 to 7	E	21 to 35
C	8 to 12	F	36 and over

GEOPHYSICAL DATA

INDEX



Assassinate Map, Deschutes, 1945
Source: Magnetic Change - 21° West

USE DIAGRAM ONLY TO OBTAIN NUMERICAL VALUES.
TO DETERMINE MAGNETIC NORTH LINE, CONNECT THE PIVOT POINT "P" ON THE SOUTH EDGE OF THE MAP WITH THE ARROW AS SHOWN ON THE DEGREE SCALE AT THE NORTH EDGE OF THE MAP.

Base from U.S. quadrangles. Revisions to base and conservation survey compiled by Soil Conservation Service from aerial photographs. Lambert projection.

50' foot grid based upon Oregon system (North ZONE)

Grid coordinates with last three digits of grid numbers omitted. Polyconic projection indicated by marginal ticks.

GEOGRAPHIC SYMBOLS

WORKS AND STRUCTURES

- Roads - Hard-surfaced
- — — Semihard-surfaced
- Dirt (good motor)
- Dirt (poor motor or private)
- Bridge
- Culvert
- Ford
- Railroads - Single track

WORKS AND STRUCTURES

- Railroads - Abandoned
- Bridge
- Grade crossing
- Railroad under
- Railroad over
- Tunnel
- Buildings in general
- Church
- School

WORKS AND STRUCTURES

- Tanks
- Power line
- Telephone line
- Pipe line
- Cemeteries
- Dams
- Gravel pit
- Mine, quarry

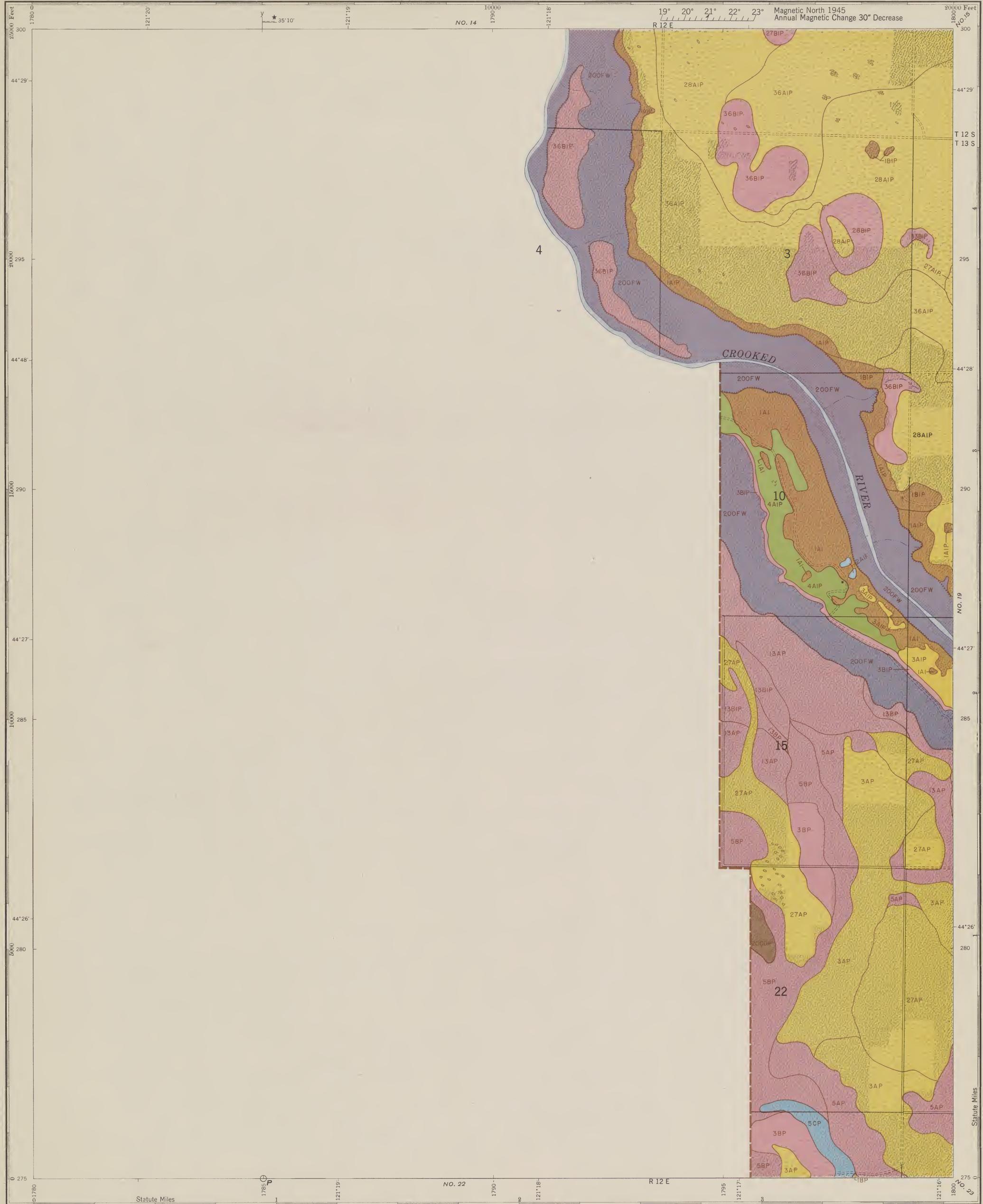
BOUNDARIES, MARKS, AND MONUMENTS

- County
- Township
- Section
- City
- Survey boundary
- Stony areas
- Rock outcrops
- Escarpment

DRAINAGE (in blue)

- Perennial streams
- Intermittent streams
- Canals or ditches
- Canal tunnel
- Water tanks
- Prnds, reservoirs
- Springs
- Marsh

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

**SUITABLE FOR OCCASIONAL
CULTIVATION**

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|---|--|---|--|--|--|---|

DESCHUTES IRRIGATION PROJECT

Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

ZONES

1 - Soil type Madras sandy loam. S - Slope 8 percent to 12 percent
2 - Sheet erosion, 25 percent to 75 percent lost; R - Wind erosion, 25 percent to 75 percent removed by wind

SOILS

LIGHT AND COARSE TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIAL

- 1 - Deschutes sandy loam, shallow depth
- 2 - Deschutes loamy loam
- 3 - Deschutes loamy sand
- 4 - Deschutes loamy loam, deep pebbles
- 5 - Deschutes loamy sandy loam
- 6 - Deschutes loamy sandy loam
- 7A - Deschutes loamy sandy loam
- 8A - Deschutes loamy sandy loam

LIGHT AND MEDIUM TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER MEDIUM CONSOLIDATED MATERIAL

- 10 - Madras sandy loam, shallow depth
- 11 - Deschutes loamy loam, deep pebbles
- 12 - Madras sandy loam, deep pebbles
- 13 - Madras sandy loam
- 14 - Deschutes loamy sandy loam
- 15 - Deschutes loamy sandy loam, deep pebbles
- 16 - Madras sandy loam
- 17 - Deschutes loamy coarse sand
- 18 - Deschutes loamy coarse sand
- 19 - Deschutes loamy sandy loam
- 20 - Deschutes loamy sandy loam
- 21 - Deschutes loamy sandy loam
- 22 - Deschutes loamy sandy loam
- 23 - Deschutes loamy sandy loam
- 24 - Deschutes loamy sandy loam
- 25 - Deschutes loamy sandy loam

EROSION

GROUNDSHEET EROSION

- 1 - Less than 10 percent of the surface removed
- 2 - 10 percent to 25 percent of the surface removed
- 3 - 25 percent to 50 percent of the surface removed
- 4 - 50 percent to 75 percent of the surface removed
- 5 - 75 percent to 100 percent of the surface removed

RILLS / EROSION

- 6 - Open furrowed rills
- 7 - Open furrowed rills, scattered bare patches
- 8 - Shallow gullies, less than 10 feet in diameter, from 1 to 5 per acre
- 9 - Deep gullies, more than 10 feet in diameter, from 1 to 5 per acre

WIND EROSION

- 10 - Up to 25 percent of surface removed
- 11 - 25 percent to 75 percent of surface removed
- 12 - 75 percent to 100 percent of surface removed

WIND DEPOSITS

- F - Accumulations 6 inches to 6 inches deep, level
- H - Accumulations 6 inches to 12 inches deep, level
- M - Accumulations 6 inches to 12 inches deep, hummocky
- — — - Line accumulations too narrow to indicate within boundaries

MISCELLANEOUS

- W - Normal erosion
- O - No associated erosion
- U - Unusually intense erosion (e.g., sheet, rill, etc.)

EXPLANATION OF SYMBOL

ZONES

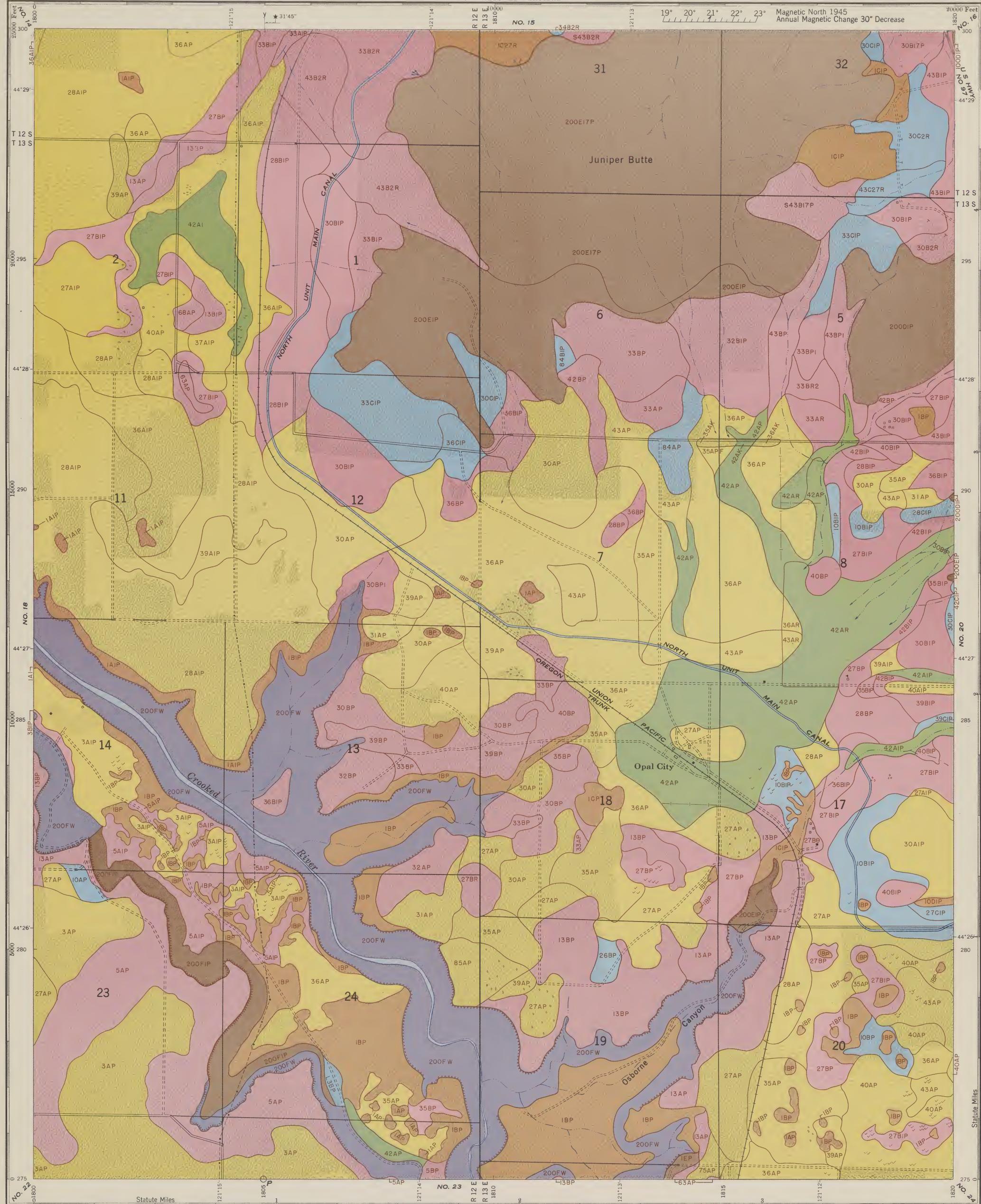
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SOILS

LIGHT TO HEAVY TEXTURED SOIL WITH MODERATELY HEAVY TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIALS

- 27 - Madras loamy loam
- 28 - Deschutes loamy loam
- 29 - Deschutes loamy loam
- 30 - Madras loam
- 31 - Agency loamy loam
- 32 - Agency loamy loam
- 33 - Culver loamy loam
- 34 - Culver loamy loam
- 35 - Culver loamy loam
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- 403 - Culver loamy loam
- 404 - Culver loamy loam
- 405 - Culver loamy loam
- 406 - Culver loamy loam
- 407 - Culver lo

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

I-Nearly level, deep, permeable soils having no special limitations in use.

II-Nearly level, moderately deep, permeable soils having minor limitations in use.

III-Moderately deep soils with stone, slope or texture limitations.

IV-Shallow, droughty or moderately sloping soils limited to pasture use.

V-Sloping, very stony lands suited for range, having minor conservation needs.

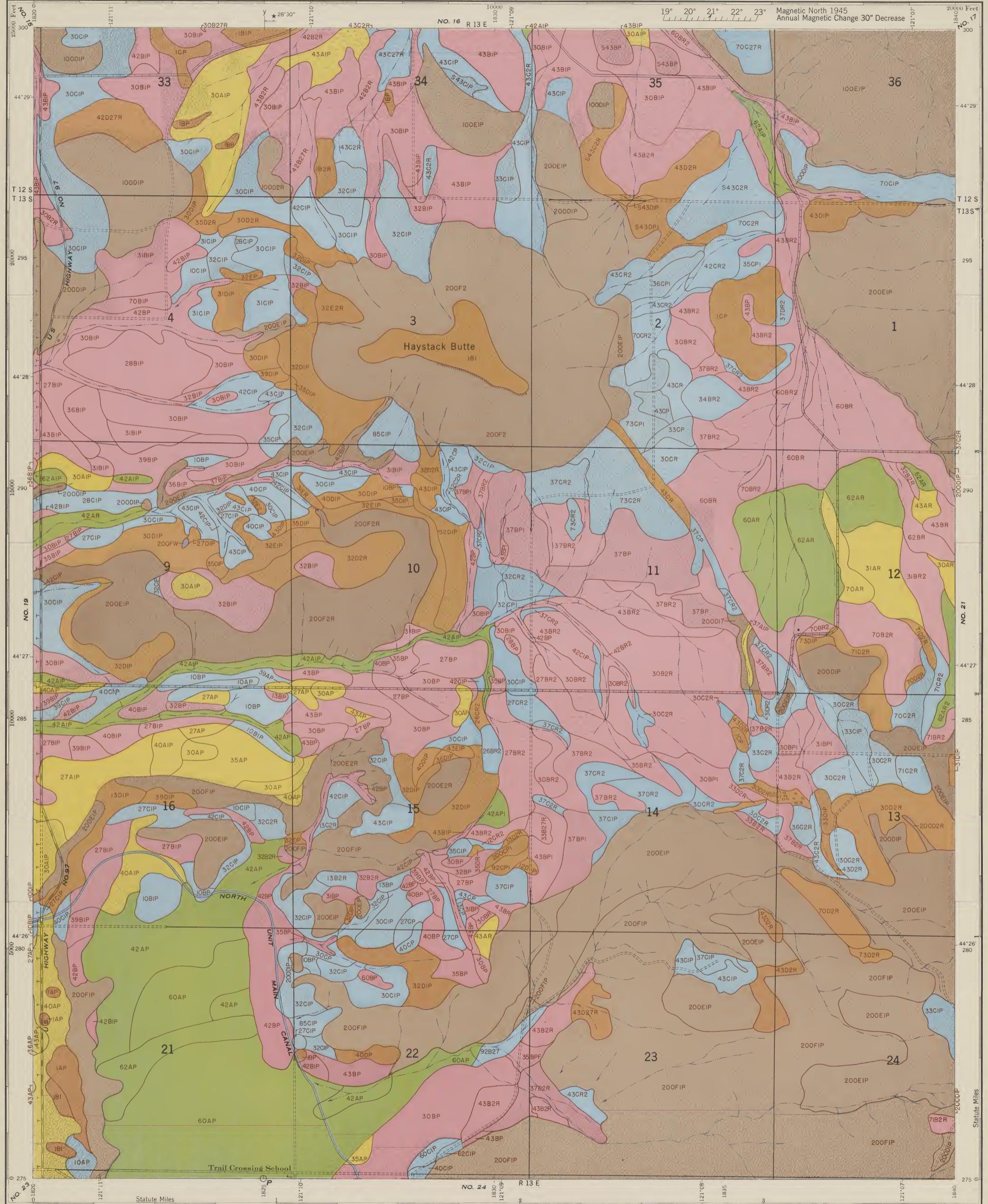
VI-Steep, very stony lands suited for range, having major conservation needs.

VII-Very steep, stony or droughty lands, essentially non-productive.

SUITABLE FOR OCCASIONAL CULTIVATION

NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

SUITABLE FOR OCCASIONAL
CULTIVATION

NOT SUITABLE FOR CULTIVATION

NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE

I-Nearly level, deep, permeable soils having no special limitations in use.	II-Nearly level, moderately deep, permeable soils having minor limitations in use.	III-Moderately deep soils with stone, slope or texture limitations.	IV-Shallow, droughty or moderately sloping soils limited to pasture use.	V-Sloping, very stony lands suited for range, having minor conservation needs.	VI-Steep, very stony lands suited for range, having major conservation needs.	VII-Very steep, stony or droughty lands; essentially non-productive.
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DESCHUTES IRRIGATION PROJECT

Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

27-Sand type. Mafias sandy loam. C-Slopes 6 percent to 12 percent.
2-Sheet erosion; 25 percent to 75 percent lost. R-Wind erosion; 25 percent to 75 percent removed by wind.

SOILS

LIGHT AND COARSE TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIAL

- 2 - Deschutes sandy loam
- 3 - Deschutes sandy loam
- 4 - Deschutes sandy loam, deep (loam)
- 5 - Deschutes loamy sandy loam
- 19 - Deschutes loamy loam
- 543 - Erie loamy sandy loam

LIGHT AND MEDIUM TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER MODERATELY COHESIVE MATERIAL

- 10 - Mafias sandy loam, shallow phase
- 10c - Deschutes sandy loam, shallow phase
- 12 - Mafias sandy loam, deep phase
- 12c - Deschutes loamy loam, deep phase
- 13 - Mafias sandy loamy loam
- 13c - Deschutes loamy sandy loam
- 90 - Deschutes sandy loamy loam
- 26 - Deschutes loamy loam
- 91 - Deschutes loamy sand
- 24 - Deschutes loamy sand

EROSION

SHEET EROSION

- 1 - Less than 25 percent of the surface soil lost
- 2 - 25 percent to 50 percent of the surface soil lost
- 3 - 75 percent to 100 percent of the surface soil lost or up to 35 percent of the B horizon lost
- 4 - 25 percent to 50 percent of the B horizon lost

GULLY EROSION

- 7 - Occasional shallow gullies
- 7c - Occasional gullies increased by farm machinery
- 8 - Shallow gullies less than 100 feet apart, relatively few more than 7 per acre
- 8c - Uncommon gullies more than 100 feet apart, intensity is more than 3 per acre

WIND EROSION

- F - Up to 25 percent of surface soil removed
- R - 25 percent to 75 percent of surface soil removed
- S - 75 percent to 100 percent of surface soil removed

WIND DEPOSITS

- F - Accumulations 10 inches to 6 inches deep, level
- H - Accumulations 6 inches to 12 inches deep, level
- K - Accumulations 6 inches to 10 inches deep, hummocky
- L - Uncommon accumulations less than 100 feet apart, intensity within boundary

MISCELLANEOUS

- W - Normal erosion
- O - No accepted erosion
- B - Undifferentiated erosion (hummocky, uneven land)

EXPLANATION OF SYMBOL

SOILS

LIGHT TO HEAVY TEXTURED SOIL WITH MODERATELY HEAVY TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIALS

- 35 - Agency sandy loam
- 37 - Agency gravelly loam
- 70 - Germ loam
- 38 - Agency loam
- 39 - Agency loamy loam
- 71 - Germ clay loam
- 73 - Germ clay loam, shallow phase

LIGHT TO HEAVY TEXTURED SOILS WITH HEAVY TEXTURED SUBSOILS OVER LIME HARD PAN

- 39 - Mafias loam
- 40 - Mafias sandy loam
- 46 - Mafias loamy loam
- 35 - Mafias clay loam

LIGHT TEXTURED SOIL WITH DEEP, LIGHT TEXTURED SUBSOIL OVER PERMÉABLE MATERIALS

- 42 - Mafias sandy loam
- 50 - Mafias sandy loam
- 51 - Mafias fine loamy loam

- 52 - Metolius sandy loam
- 53 - Metolius loamy sand
- 6X - Latiluv sandy loam

Poorly Drained Light Textured Surface Soil With Heavy Textured Subsoil Over Basalt Or Mixed Consolidated Materials

- 61 - Germ clay loam
- 52 - Germ sandy loam

Light To Heavy Textured Soil With Heavy Textured Subsoil Moderate Consolidated Materials

- 74 - Redmond loam
- 75 - Redmond sandy loam
- 75c - Redmond sandy loam-deep orange
- 76 - Redmond clay loam

Miscellaneous Soils

- 10A - Rough broken land
- 20A - Rough broken land
- RW - Riverwash
- 91 - Volcanic ash
- 1 - Sandbar

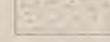
LAND USE

Reforested in gray

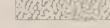
Cultivated land, annual and perennial crops such as grain, row crops, small grain, cereal grasses



Rangeland - Land formerly cultivated but now abandoned, 10 annual grasses, crested wheat grasses, or mixes



Rangeland - Annual or perennial grasses or pastures



Woodland - Timber or non-timber trees



Wetland



Reforestation and Rehabilitation



SLOPE

	Dominant Percent		Dominant Percent
	0 to 3	4 to 7	8 to 12
	13 to 20	21 to 35	36 and over

GEOGRAPHIC SYMBOLS

WORKS AND STRUCTURES

- Roads - Hard-surfaced
- Roads - Semihard-surfaced
- Dirt (good motor) - Dirt road motor or private
- Bridge
- Canal
- Ford
- Railroads - Single track

WORKS AND STRUCTURES

- Railroads - Double track
- Bridge
- Grade crossing
- Railroad under
- Railroad over
- Tunnel
- Buildings in general
- Church
- School

WORKS AND STRUCTURES

- Tanks
- Power line
- Telephone line
- Pipe line
- Cemetery
- Dams
- Gravel pit
- Mine quarry

BOUNDARIES, MARKS, AND MONUMENTS

- Crannery
- Township
- Section
- City
- CONSERVATION SURVEY DATA (in brown)
- Survey column
- Stony creek 80%
- Rock cuttings
- Estuarium

DRAINAGE (in blue)

- Ground streams
- Intrermittent streams
- Canals or ditches
- Canal tunnel
- Water tanks
- Ponds, reservoirs
- Spring
- Sinks
- Marsh

American Mean Deviation 3945
Oregon Mean Change 150' W.E.

USE DIAGRAM ONLY TO OBTAIN NUMERICAL VALUES.
TO DETERMINE MAGNETIC NORTH LINE, CONNECT THE PIVOT POINT "P" ON THE SOUTH EDGE OF THE MAP WITH THE ARROW AS SHOWN ON THE DEGREE SCALE AT THE NORTH EDGE OF THE MAP.

Scale from U.S. Geological Survey 1:250,000
and conterminous states compiled by Soil Conservation Service from aerial photographs. Lambert projection
O.S.P. (Oregon State Plane) Central Oregon (Zone 5)
Degree increments with last three digits of grid numbers
omitted. Projection correction furnished by marginal table.

Source from U.S. Geological Survey 1:250,000

and conterminous states compiled by Soil Conservation

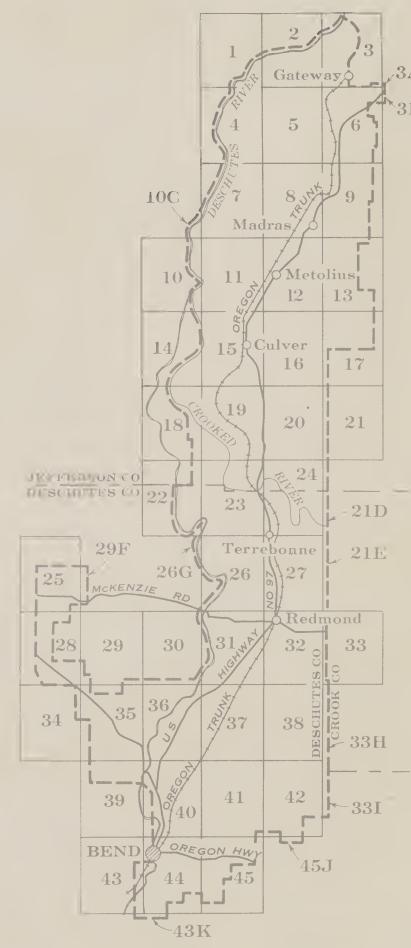
Service from aerial photographs. Lambert projection

O.S.P. (Oregon State Plane) Central Oregon (Zone 5)

Degree increments with last three digits of grid numbers

omitted. Projection correction furnished by marginal table.

INDEX



OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

SUITABLE FOR OCCASIONAL CULTIVATION

NOT SUITABLE FOR CULTIVATION

**NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE**

I-Nearly level, deep, permeable soils having no special limitations in use.

II-Nearly level, moderately deep, permeable soil having minor limitations in use.

III-Moderately deep soils with stone, slope or texture limitations.

IV-Shallow, droughty or moderately sloping soil limited to pasture use.

VI-Sloping, very stony lands suited for range
having minor conservation needs.

VII-Steep, very stony lands suited for range, having major conservation needs.

VIII-Very steep, stony or droughty lands;
essentially non-productive.

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

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DESCHUTES IRRIGATION PROJECT

Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

SOILS

EROSION

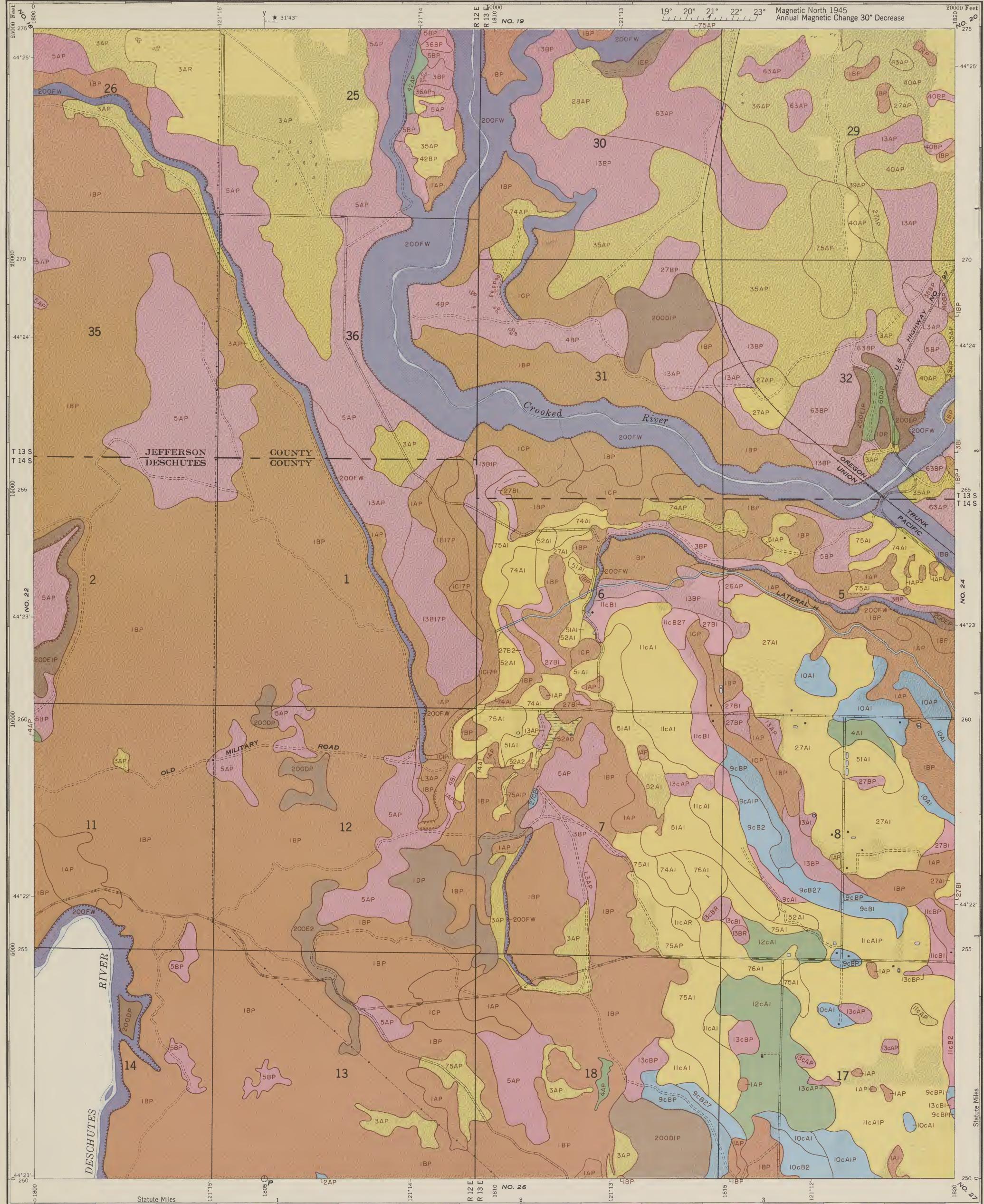
LAND USE

SLOPK

INDEX

USE DIAGRAM ONLY TO OBTAIN NUMERICAL VALUES.
TO DETERMINE MAGNETIC NORTH LINE CONNECT THE
POLE POINT "P" ON THE SOUTH EDGE OF THE MAP
WITH THE ARROW AS SHOWN ON THE DEGREE
SCALE AT THE NORTH EDGE OF THE MAP.

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

SUITABLE FOR OCCASIONAL
CULTIVATION

NOT SUITABLE FOR CULTIVATION

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RANGE OR SIMILAR USE

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VII-Very steep, stony or droughty lands; essentially non-productive.

SOIL CONSERVATION SERVICE, WASHINGTON, D.C.
1453 April 1946

DESCHUTES IRRIGATION PROJECT

Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOLS

LIGHT AND MEDIUM TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIAL
 2 - Deschutes sandy loam, shallow phase
 3 - Deschutes sandy loam
 4 - Deschutes loamy sand, deep phase
 5 - Deschutes sandy loam
 19 - Deschutes loamy loam
 24 - Deschutes loamy loam

LIGHT AND MEDIUM TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER MODERATELY CONSOLIDATED MATERIAL
 10 - Maletta sandy loam, shallow phase
 11 - Deschutes sandy loam, shallow phase
 12 - Maletta sandy loam, deep phase
 18 - Deschutes sandy loam, deep phase
 13 - Maletta stony sandy loam
 13c - Deschutes stony sandy loam
 90 - Deschutes stony sandy loam
 26 - Deschutes loamy sand
 9c - Deschutes loamy sand
 24 - Deschutes loamy sand

EROSION

SHEET EROSION

- 1 - Less than 25 percent of the surface soil lost
- 2 - 25 percent to 75 percent of the surface soil lost
- 3 - 75 percent to 100 percent of the surface soil lost or up to 25 percent of the B horizon lost
- 4 - 25 percent to 50 percent of the B horizon lost

GULLY EROSION

- 7 - Occasional shallow gullies
- ⑦ - Occasional gullies uncrossable by farm machinery
- 8 - Shallow gullies less than 100 feet apart laterally or more than 3 per acre
- ⑧ - Uncrossable gullies less than 100 feet apart laterally or more than 3 per acre

WIND EROSION

- P - Up to 25 percent of surface soil removed
- R - 25 percent to 75 percent of surface soil removed
- S - 75 percent to 100 percent of surface soil removed

WIND DEPOSITS

- F - Accumulations 0 inches to 6 inches deep, level
- H - Accumulations 6 inches to 12 inches deep, level
- K - Accumulations 6 inches to 12 inches deep, hummocky
- - Line accumulations too narrow to include within boundaries

MISCELLANEOUS

- W - Water erosion
- O - Oil accelerated erosion
- θ - Undifferentiated erosion (farm fields, urban areas)

SOILS

LIGHT TO HEAVY TEXTURED SOIL WITH MODERATELY TO HEAVY TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIALS
 35 - Aromatic sandy loam
 37 - Aromatic gravelly loam
 70 - Geric loam
 36 - Aromatic loam
 63 - Aromatic loamy loam
 73 - Geric clay loam, shallow phase

LIGHT TO HEAVY TEXTURED SOILS WITH HEAVY TEXTURED SUBSOILS OVER LIME CONSOLIDATED MATERIALS
 39 - Maletta loam
 40 - Maletta sandy loam
 60 - Maletta stony loam
 35 - Maletta clay loam

LIGHT TO HEAVY TEXTURED SOILS WITH HEAVY TEXTURED SUBSOILS, MODERATELY CONSOLIDATED MATERIALS
 74 - Redmond loam
 75 - Redmond stony loam
 75a - Redmond sandy loam, deep phase
 76 - Redmond clay loam

MISCELLANEOUS SOILS
 100 - Rough broken land
 200 - Rough stony land
 RW - Riverwash
 91 - Volcanic ash
 1 - Scabland

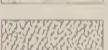
LAND USE

Reproduced in gray

Cultivated land, annual and perennial crops such as grain, row crops, alfalfa, clover and grasses



Rangeland: Land formerly cultivated but now abandoned to annual grasses, crested wheat grasses, or browse



Rangeland: Annual or perennial grasses or sagebrush



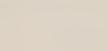
Woodland: Juniper or Ponderosa pine



Irrigated land



Farmstead and urban sites



SLOPE

	DOMINANT PERCENT		DOMINANT PERCENT
A	0 to 3	D	13 to 20
B	4 to 7	E	21 to 35
C	8 to 12	F	36 and over

GEOGRAPHIC SYMBOLS

WORKS AND STRUCTURES

Roads - Hard-surfaced
 Semihard-surfaced
 Dirt (good motor)
 Dirt (poor motor or private)
 Bridge
 Culvert
 Ford
 Railroads - Single track

WORKS AND STRUCTURES

Railroads - Abandoned
 Bridge
 Grade crossing
 Railroad under
 Railroad over
 Tunnel
 Buildings in general
 Division
 School

WORKS AND STRUCTURES

Power line
 Telephone line
 Pipe line
 Cemeteries
 Dams
 Gravel pit
 Mine, quarry

BOUNDARIES, MARKS, AND MONUMENTS

County
 Township
 Section
 City
 CONSERVATION SURVEY DATA (in brown)
 Survey boundary
 Survey trees
 Rock outcrops
 Escarpment

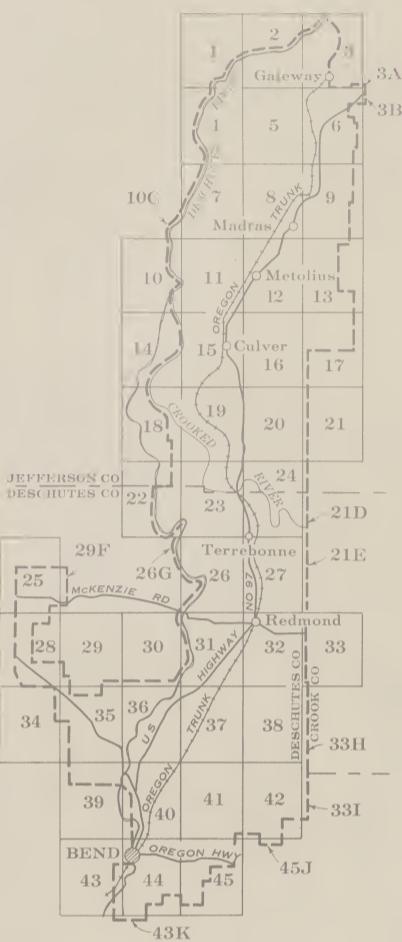
DRAINAGE (in blue)

Potential streams
 Intermittent streams
 Canals or ditches
 Canal tunnel
 Water tanks
 Ponds, reservoirs
 Springs
 Sinks
 Marsh

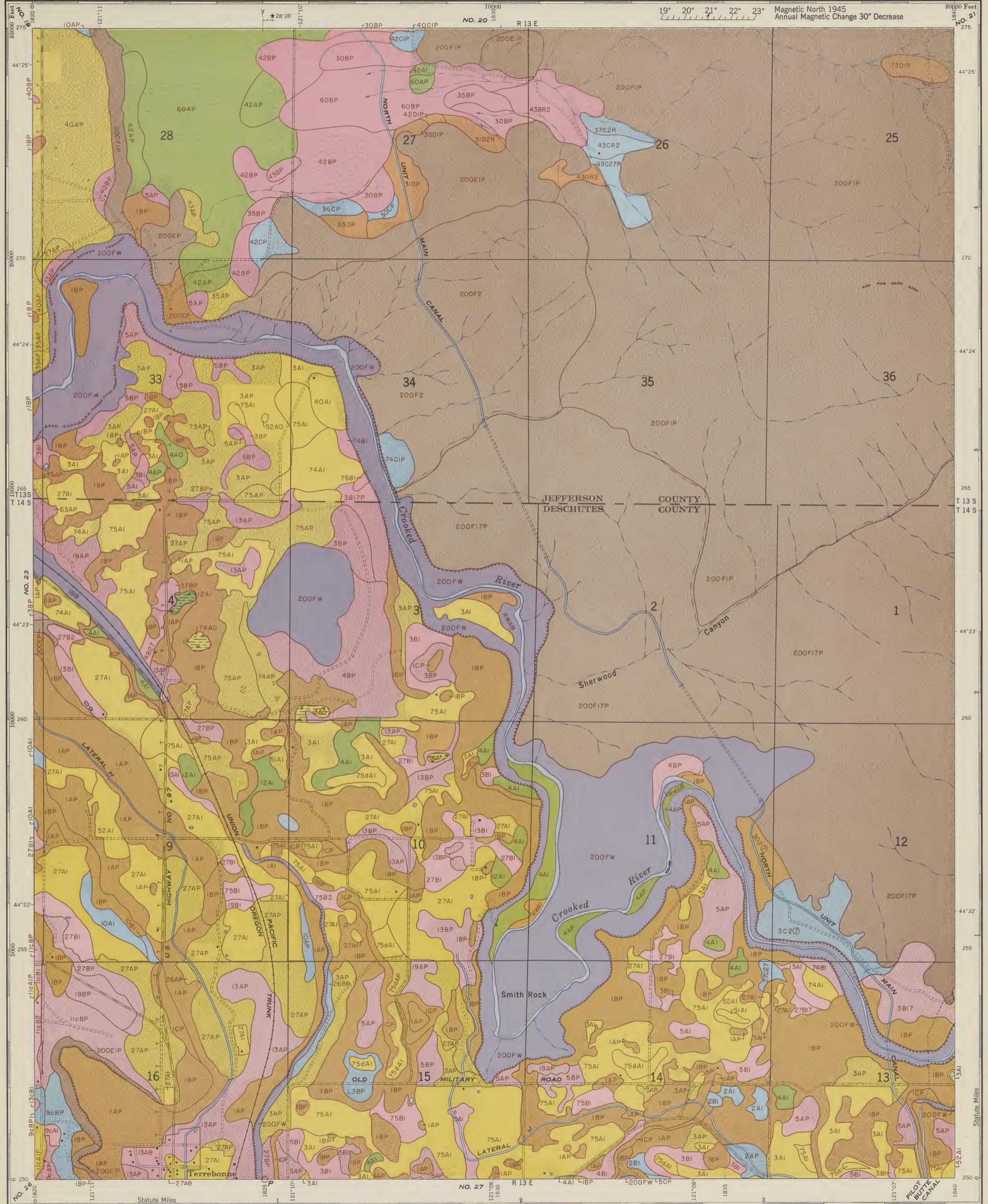
Approximate Mean Declination 1945
 Annual Magnetic Change 1.30° West
 USE DIAGRAM ONLY TO OBTAIN NUMERICAL VALUES.
 TO DETERMINE MAGNETIC NORTH LINE, CONNECT THE
 PIVOT POINT "P" ON THE SOUTH EDGE OF THE MAP
 WITH THE ARROW AS SHOWN ON THE DEGREE
 SCALE AT THE NORTH EDGE OF THE MAP.

Base from U.S. Geological Survey compiled by Soil Conservation Service from aerial photographs. Lambert projection.
 50' Map grid based on Oregon system (North Zone)
 of same coordinates with last three digits of grid numbers
 omitted; magnetic declination indicated by marginal ticks.

INDEX



OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



DESCHUTES IRRIGATION PROJECT

Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

1 - Sheet erosion, 25 percent to 75 percent; 2 - Gully erosion, 12 percent
3 - Sheet erosion, 75 percent to 100 percent; 4 - Gully erosion, 25 percent to 75 percent; 5 - Wind erosion, 25 percent to 100 percent; 6 - Water erosion, 100 percent.

SOILS

LIGHT AND COARSE TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIAL

- 1 - Deschutes sandy loam
- 2 - Deschutes sandy loamy shale
- 3 - Deschutes loamy loam
- 4 - Deschutes loamy loam, shallow phase
- 5 - Deschutes loamy loamy loam
- 6 - Deschutes loamy loamy loam
- 7 - Deschutes loamy loamy loam
- 8 - Deschutes loamy loamy loam

LIGHT AND MEDIUM TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER MODERATELY CONSOLIDATED MATERIAL

- 9 - Madras sandy loam, shallow phase
- 10 - Madras sandy loam, deep phase
- 11 - Madras loamy loam, deep phase
- 12 - Madras loamy loam, deep phase
- 13 - Madras loamy sandy loam
- 13c - Deschutes loamy sandy loam
- 14 - Deschutes loamy sandy loam
- 14c - Deschutes loamy sandy loam
- 15 - Deschutes loamy sandy loam
- 15c - Deschutes loamy sandy loam
- 16 - Deschutes loamy sand
- 17 - Deschutes loamy sand
- 18 - Deschutes loamy sand
- 19 - Deschutes loamy sand
- 20 - Deschutes loamy sand

EROSION

SHEET EROSION

- 1 - Less than 25 percent
- 2 - 25 percent to 75 percent of the surface area lost
- 3 - 75 percent to 100 percent, if the surface < 1 (or 0 to 25 percent) of the B horizon lost
- 4 - 25 percent to 50 percent in the B horizon lost

GULLY EROSION

- 5 - Deep gullies, 10 feet or more
- 6 - Shallow gullies less than 100 feet apart laterally by more than 3 percent
- 7 - Uncrossable gullies less than 100 feet apart laterally by more than 3 percent wide

WIND EROSION

- 8 - Up to 25 percent of surface soil removed
- 9 - 25 percent to 75 percent of surface soil removed
- 10 - 75 percent to 100 percent of surface soil removed

WIND DEPOSITS

- F - Accumulation, 1 to 6 inches deep, neutral
- H - Accumulation, 6 inches to 12 inches deep, level
- K - Accumulations, 6 inches to 12 inches deep, hummocky
- M - Wind accumulations too variable to measure

MISCELLANEOUS

- W - Wind scours
- R - No significant erosion
- E - Undifferentiated erosion (erosion, no surface)

SOILS

LIGHT TO MEDIUM TEXTURED SOIL WITH MODERATELY HEAVY TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIALS

- 21 - Agency sandy loam
- 22 - Agency gravelly loam
- 23 - Agency loamy loam
- 24 - Agency loamy loam
- 25 - Agency loamy loam
- 26 - Agency loamy loam
- 27 - Agency loamy loam
- 28 - Agency loamy loam
- 29 - Agency loamy loam
- 30 - Agency loamy loam
- 31 - Lemmon loamy clay loam
- 32 - Lemmon loamy clay loam
- 33 - Lemmon loamy clay loam
- 34 - Lemmon loamy clay loam, shallow phase
- 35 - Lemmon loamy clay loam

LIGHT TO HEAVY TEXTURED SOILS WITH HEAVY TEXTURED SUBSOILS OVER LIME HARDPEN

- 36 - Madras loam
- 37 - Madras loamy loam
- 38 - Madras loamy loam
- 39 - Madras loamy loam
- 40 - Madras loamy loam
- 41 - Madras loamy loam
- 42 - Madras loamy loam
- 43 - Madras loamy loam
- 44 - Madras loamy loam
- 45 - Madras loamy loam

LIGHT TEXTURED SOIL WITH DEEP, LIGHT TEXTURED SUBSOIL OVER PERMEABLE MATERIALS

- 46 - Metolius sandy loam
- 47 - Metolius loamy loam
- 48 - Metolius loamy loam
- 49 - Metolius loamy loam
- 50 - Metolius loamy loam
- 51 - Metolius loamy loam
- 52 - Metolius loamy loam
- 53 - Metolius loamy loam
- 54 - Metolius loamy loam
- 55 - Metolius loamy loam

LAND USE

Reproduction in Gray

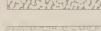
Cultivated land, annual and perennial crops such as grain, row crops, alfalfa, fruit and vegetables



Rough land - Land formerly cultivated but now abandoned, in annual grasses, crested wheat grasses or brush



Rangeland - Annual or perennial grasses or sagebrush



Woodland - Juniper or Ponderosa pine



Idle land



Forested land, timbered areas



SLOPE

DOMINANT PERCENT	DOMINANT TERRAIN	
	0 to 3	0 to 20
3 to 7	F	---
5 to 12	F	---

GEOGRAPHIC SYMBOLS

WORKS AND STRUCTURES

- Roads - Hard-surfaced
- Semi-hard-surfaced
- Dirt (good roads)
- Dirt (poor roads) or roads
- Bridge
- Canal
- Tunnels
- Tall roads - Single track

WORKS AND STRUCTURES

- Railroads - Hard-surfaced
- Bridges
- Canal crossing
- Reservoir outlet
- Reservoirs
- Water tanks
- Reservoirs - Single track

WORKS AND STRUCTURES

- River line
- Drainage line
- Plow line
- Demarcations
- Dikes
- Canals
- Miner's claim

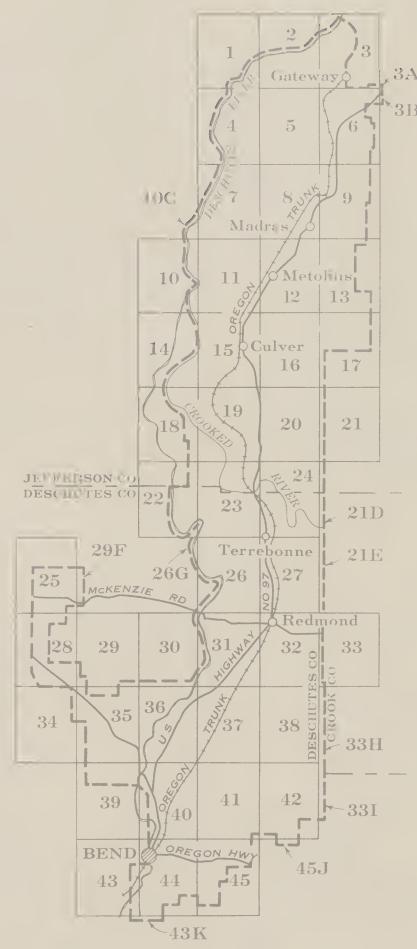
BOUNDARIES, MARKS, AND MONUMENTS

- County
- Township
- Section
- City
- Survey boundary
- Survey stakes
- Rock surfaces
- Elliptical

DRAINAGE

- River channel
- Infiltrated drainage
- Canals or ditches
- Canal tunnel
- Water tanks
- Ponds, reservoirs
- Springs
- Marsh

INDEX



Oregon State Map Division, 1945
Printed Magnetic U.S. Grid

USE DIAGRAM ONLY TO OBTAIN NUMERICAL VALUES
TO DETERMINE MAGNETIC NORTH LINE, CONNECT THE
PIVOT POINT "P" ON THE SOUTH EDGE OF THE MAP
WITH THE ARROW AS SHOWN ON THE DEGREE
SCALE AT THE NORTH EDGE OF THE MAP.

See Web Site at www.oregonstate.edu/dept/ceo/ceo.html
and www.oregonstate.edu/dept/ceo/ceo.html
for more information on Oregon's magnetic field.
A. Oregon's magnetic field is the result of the Northern
Hemisphere dipole field produced by the Earth's

magnetic field, which is produced by the Earth's

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

**SUITABLE FOR OCCASIONAL
CULTIVATION**

NOT SUITABLE FOR CULTIVATION

**NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE**

- | | | | | | | |
|---|--|---|--|--|---|--|
| I-Nearly level, deep, permeable soils having no special limitations in use. | II-Nearly level, moderately deep, permeable soils having minor limitations in use. | III-Moderately deep soils with stone, slope or texture limitations. | IV-Shallow, droughty or moderately sloping soils limited to pasture use. | V-Sloping, very stony lands suited for range, having minor conservation needs. | VI-Steep, very stony lands suited for range, having major conservation needs. | VII-Very steep, stony or droughty lands; essentially non-productive. |
|---|--|---|--|--|---|--|

DESCHUTES IRRIGATION PROJECT

Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

27C2R

27-Soil type Madras sandy loam; C-Slope, 8 percent to 12 percent
2-Sheet erosion; 25-Serene, 75 percent lost; R-Wind erosion, 25 percent to 75 percent removed by wind.

SOILS

LIGHT AND COARSE TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIAL

- 2 - Deschutes sandy loam, shallow phase
- 3 - Deschutes sandy loam
- L3 - Deschutes loamy sand
- 4 - Deschutes sandy loam, deep phase
- 5 - Deschutes stony loam
- 19 - Deschutes stony loam
- S43 - Era stony sandy loam

LIGHT AND MEDIUM TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER MODERATELY CONSOLIDATED MATERIAL

- 10 - Madras sandy loam, shallow phase
- 10c - Deschutes sandy loam, shallow phase
- 12 - Madras sandy loam, deep phase
- 12c - Deschutes sandy loam, deep phase
- 13 - Madras stony sandy loam
- 13c - Deschutes stony sandy loam
- 90 - Deschutes stony sandy loam
- 26 - Deschutes loamy sand
- 28 - Deschutes loamy sand
- 24 - Deschutes loamy sand

EROSION

SHEET EROSION

- 1 - Less than 25 percent of the surface soil lost
- 2 - 25 percent to 75 percent of the surface soil lost
- 3 - 75 percent to 100 percent of the surface soil lost or up to 25 percent of the B horizon lost
- 4 - 25 percent to 50 percent of the B horizon lost

GULLY EROSION

- 7 - Occasional shallow gullies
- 7 - Occasional gullies uncrossable by farm machinery
- 8 - Shallow gullies less than 100 feet apart laterally or more than 3 per acre
- 8 - Uncrossable gullies less than 100 feet apart laterally or more than 3 per acre

WIND EROSION

- P - Up to 25 percent of surface soil removed
- R - 25 percent to 75 percent of surface soil removed
- S - 75 percent to 100 percent of surface soil removed

WIND DEPOSITS

- F - Accumulations 0 inches to 6 inches deep, level
- H - Accumulations 6 inches to 12 inches deep, level
- K - Accumulations 6 inches to 12 inches deep, hummocky
- (line) - Line accumulations too narrow to include within boundaries

MISCELLANEOUS

- W - Normal erosion
- O - No accelerated erosion
- U - Undifferentiated erosion (farmland, urban areas)

SOILS

LIGHT TO HEAVY TEXTURED SOIL WITH MODERATELY HEAVY TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIALS

- 35 - Agency sandy loam
- 37 - Agency gravelly loam
- 70 - Gem loam
- 36 - Agency loam
- 73 - Gem clay loam
- 74 - Gem clay loam, shallow phase

LIGHT TO HEAVY TEXTURED SOILS WITH HEAVY TEXTURED SUBSOILS OVER LIME HARDPAN

- 39 - Madras loam
- 40 - Madras sandy loam
- 68 - Madras stony loam
- 85 - Madras clay loam

LIGHT TEXTURED SOIL WITH DEEP, LIGHT TEXTURED SUBSOIL OVER PERMEABLE MATERIALS

- 42 - Metolius sandy loam
- 60 - Metolius sandy loam
- 61 - Metolius fine sandy loam

LAND USE

Reproduced in gray

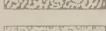
Cultivated land, annual and perennial crops such as grain, row crops, alfalfa, clover and grasses



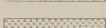
Rangeland - Land formerly cultivated but now abandoned, in annual grasses, crested wheat grasses, or browse



Woodland, Juniper or Ponderosa pine



Idle land



Flooded and drain areas



SLOPE

Dominant Percent	Dominant Percent
0 to 3	13 to 20
4 to 7	21 to 35
8 to 12	36 and over

GEOGRAPHIC SYMBOLS

WORKS AND STRUCTURES

- Roads: Hard-surfaced
- Semihard-surfaced
- Dirt (good motor)
- Dirt (poor motor or private)
- Bridge
- Culvert
- Ford
- Railroads - Single track

WORKS AND STRUCTURES

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- Church
- School

WORKS AND STRUCTURES

- Tanks
- Power line
- Telephone line
- Pipe line
- Cemeteries
- Dams
- Gravel pit
- Mine quarry

BOUNDARIES, MARKS, AND MONUMENTS

- County
- Township
- Section
- City
- Survey boundary
- Stony areas
- Rock outcrops
- Escarpment

DRAINAGE (in blue)

- Perennial streams
- Intermittent streams
- Canals or ditches
- Canal tunnel
- Water tanks
- Ponds, reservoirs
- Spring
- Sink
- Marsh

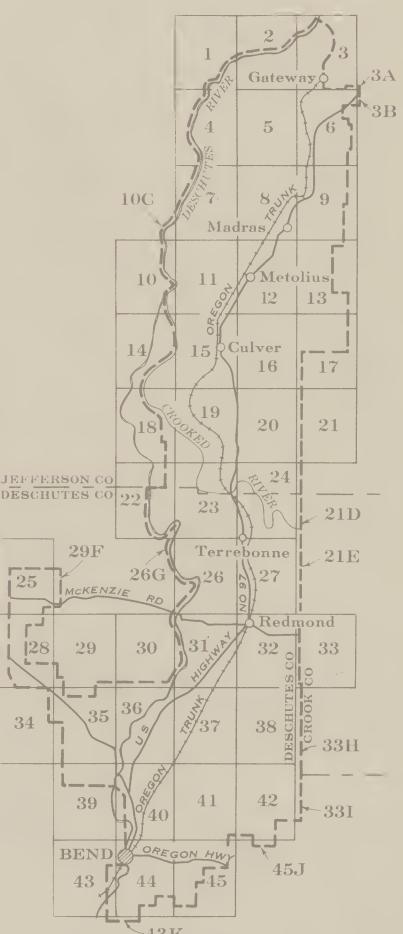
USE DIAGRAM ONLY TO OBTAIN NUMERICAL VALUES.
TO DETERMINE MAGNETIC NORTH LINE, CONNECT THE PIVOT POINT "P" ON THE SOUTH EDGE OF THE MAP WITH THE ARROW AS SHOWN ON THE DEGREE SCALE AT THE NORTH EDGE OF THE MAP.

Base from U.S.G.S. quadrangles. Revision by base and conservation survey compiled by Soil Conservation Service from aerial photographs. Lambert projection.
5000 foot grid based upon Oregon system (North Zone)
Plane coordinates with last three digits of grid numbers omitted. Polyconic projection indicated by marginal ticks.

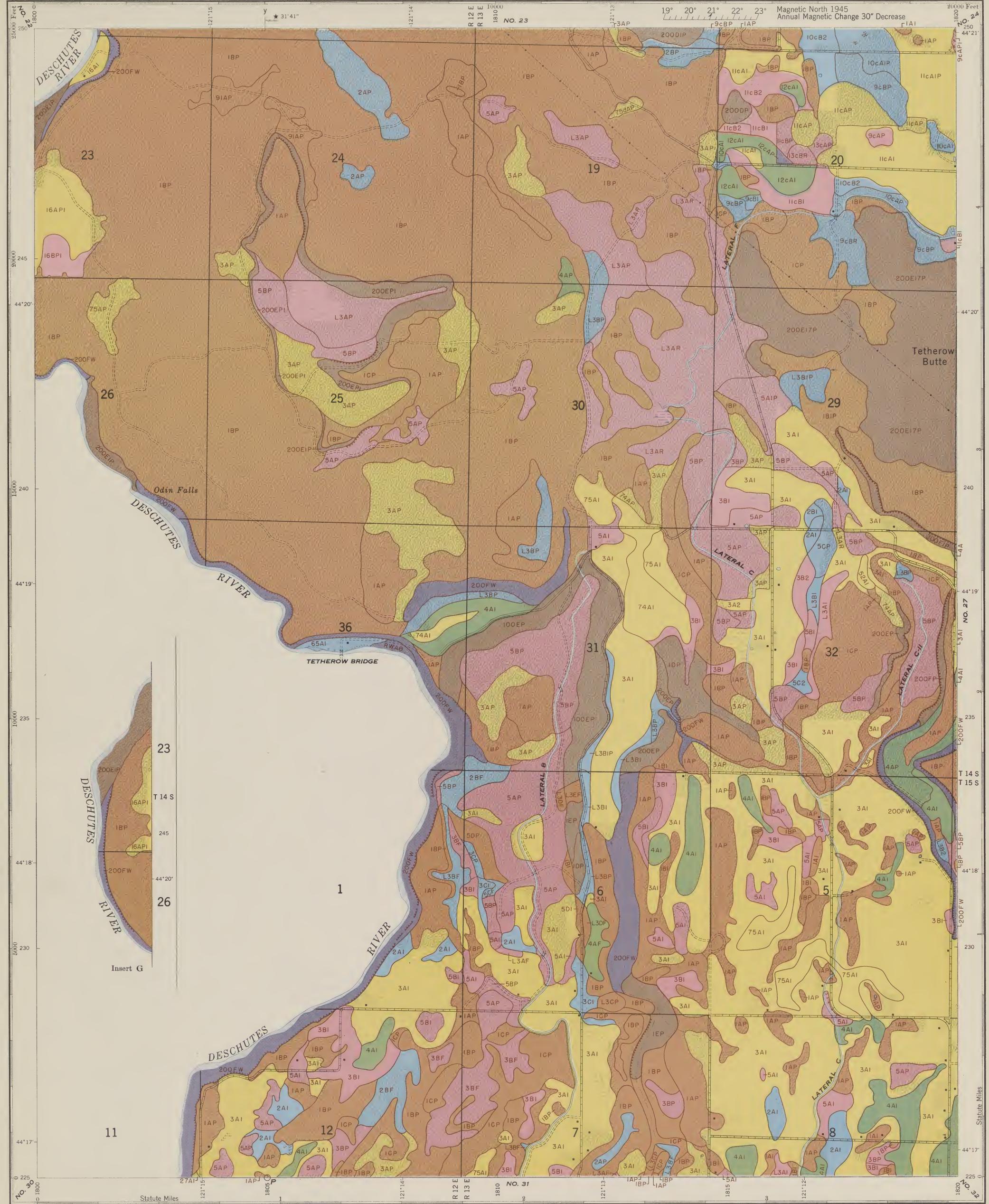


Approximate Mean Declination, 1945
Annual Magnetic Range 1.0° West

INDEX



OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

SUITABLE FOR OCCASIONAL CULTIVATION

NOT SUITABLE FOR CULTIVATION

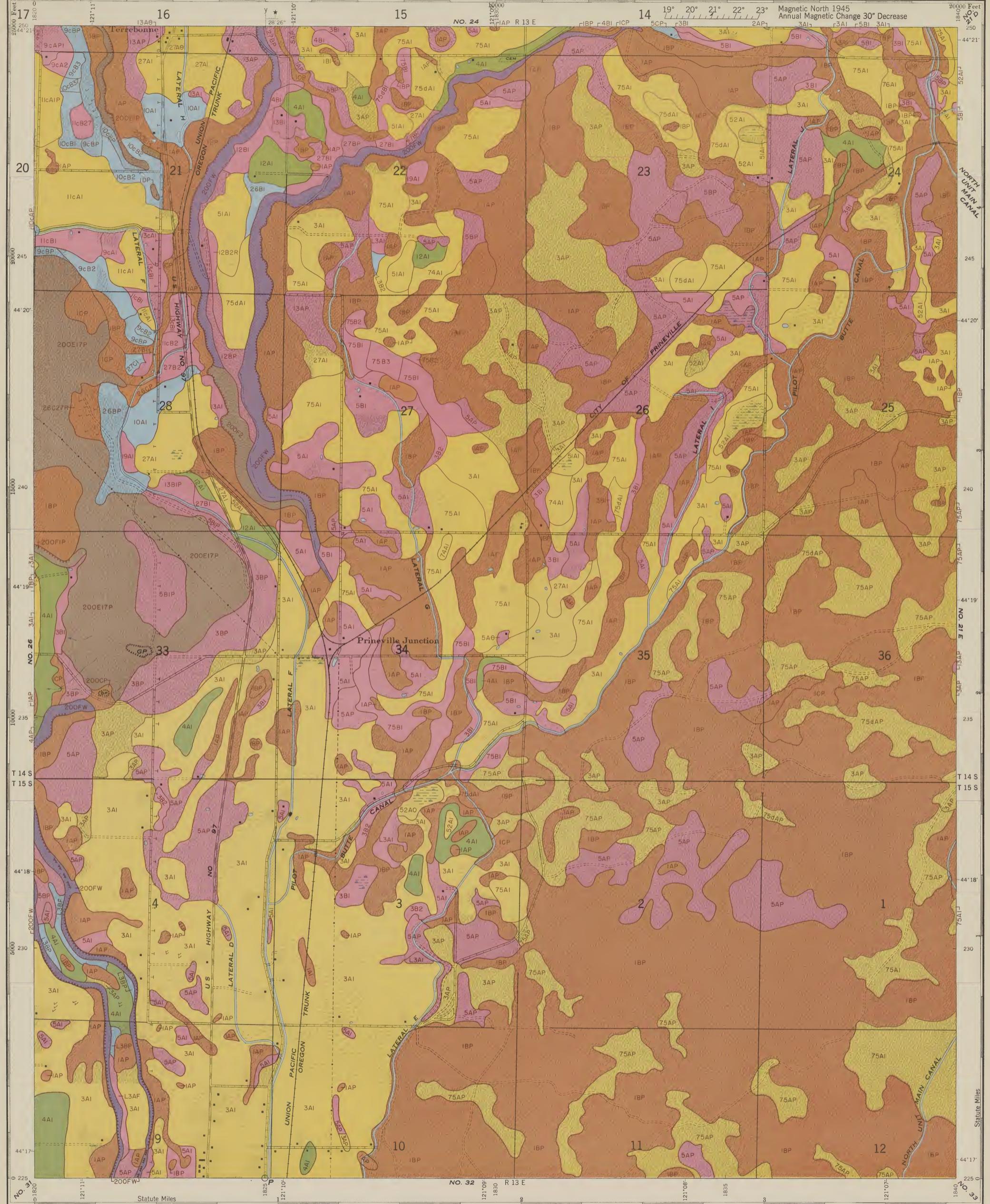
**NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE**

- | | | | | | | |
|---|--|---|--|---|--|---|
| I-Nearly level, deep, permeable soils having no special limitations in use. | II-Nearly level, moderately deep, permeable soils having minor limitations in use. | III-Moderately deep soils with stone, slope or texture limitations. | IV-Shallow, droughty or moderately sloping soils limited to pasture use. | VI-Sloping, very stony lands suited for range, having minor conservation needs. | VII-Steep, very stony lands suited for range, having major conservation needs. | VIII-Very steep, stony or droughty lands; essentially non-productive. |
|---|--|---|--|---|--|---|

DESCHUTES HOGGATION PROJECT

LEGEND

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

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DESCHUTES IRRIGATION PROJECT

Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

27 - Madras sandy loam C-Slope, 8 percent to 12 percent.
2 - Sheet erosion, 25 percent to 75 percent lost. R-Wind erosion, 25 percent to 75 percent removed by wind.

SOILS

LIGHT AND COARSE TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIAL

- 2 - Deschutes sandy loam, shallow phase
- 3 - Deschutes sandy loam.
- 43 - Era sandy loam.
- 43c - Deschutes loamy sand.
- 4 - Deschutes sandy loam, deep phase
- 5 - Deschutes stony sandy loam
- 19 - Deschutes stony loam
- S43 - Era stony sandy loam

LIGHT AND MEDIUM TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER MODERATELY CONSOLIDATED MATERIAL

- 10 - Madras stony loam, shallow phase.
- 10c - Deschutes stony loam, shallow phase
- 12 - Madras sandy loam, deep phase.
- 12c - Deschutes sandy loam, deep phase
- 13 - Madras stony sandy loam.
- 13c - Deschutes stony sandy loam.
- 90 - Deschutes stony sandy loam.
- 26 - Deschutes loamy sand.
- 26c - Deschutes loamy sand.
- 24 - Deschutes loamy sand.

EROSION

SHEET EROSION

- 1 - Less than 25 percent of the surface soil lost
- 2 - 25 percent to 75 percent of the surface soil lost
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- 35 - Agency sandy loam
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- 73 - Gem loam, shallow phase

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- 60 - Madras stony loam
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- 51 - Odin clay loam
- 52 - Odin sandy loam

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- 74 - Redmond loam
- 75 - Redmond sandy loam
- 75d - Redmond loamy loam, deep phase
- 76 - Redmond clay loam

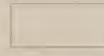
MISCELLANEOUS SOILS

- 100 - Rough broken land
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- 1 - Scabland

LAND USE

Reproduced in gray

Cultivated land, annual and perennial crops such as grain, row crops, alfalfa, hay and grasses



Rangeland, land formerly cultivated but now unoccupied, in annual grasses, crested wheat grasses, or browse



Range land, annual or perennial grasses or legumes



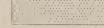
Woodland, juniper or ponderosa pine



Idle land



Farmfield area or crop area



SLOPE

	DOMINANT PERCENT	DOMINANT PERCENT	
A	0 to 3	D	13 to 20
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GEOGRAPHIC SYMBOLS

WORKS AND STRUCTURES

- Roads - Hard-surfaced
- Semihard-surfaced
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WORKS AND STRUCTURES

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- Telephone line
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- Cemeteries
- Dams
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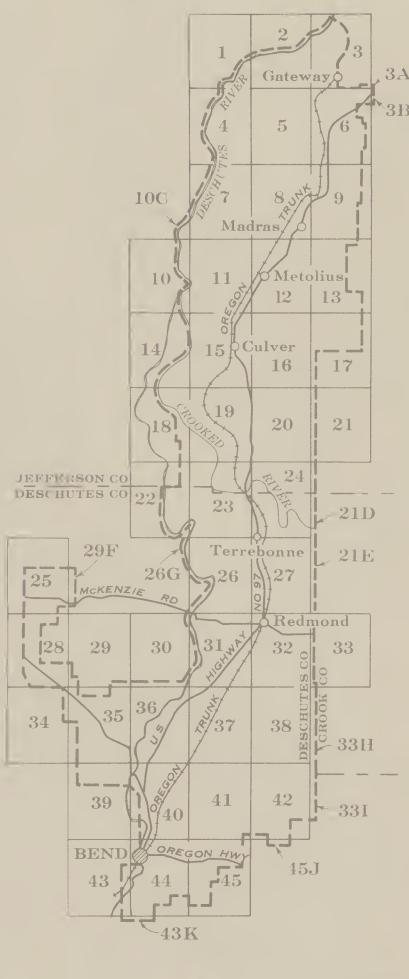
BOUNDARIES, MARKS, AND MONUMENTS

- County
- Township
- Section
- City
- CONSERVATION SURVEY DATA (in brown)
- Survey boundary
- Stony areas
- Rock outcrops
- Escarpment

DRAINAGE (in blue)

- Perennial streams
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- Canals or ditches
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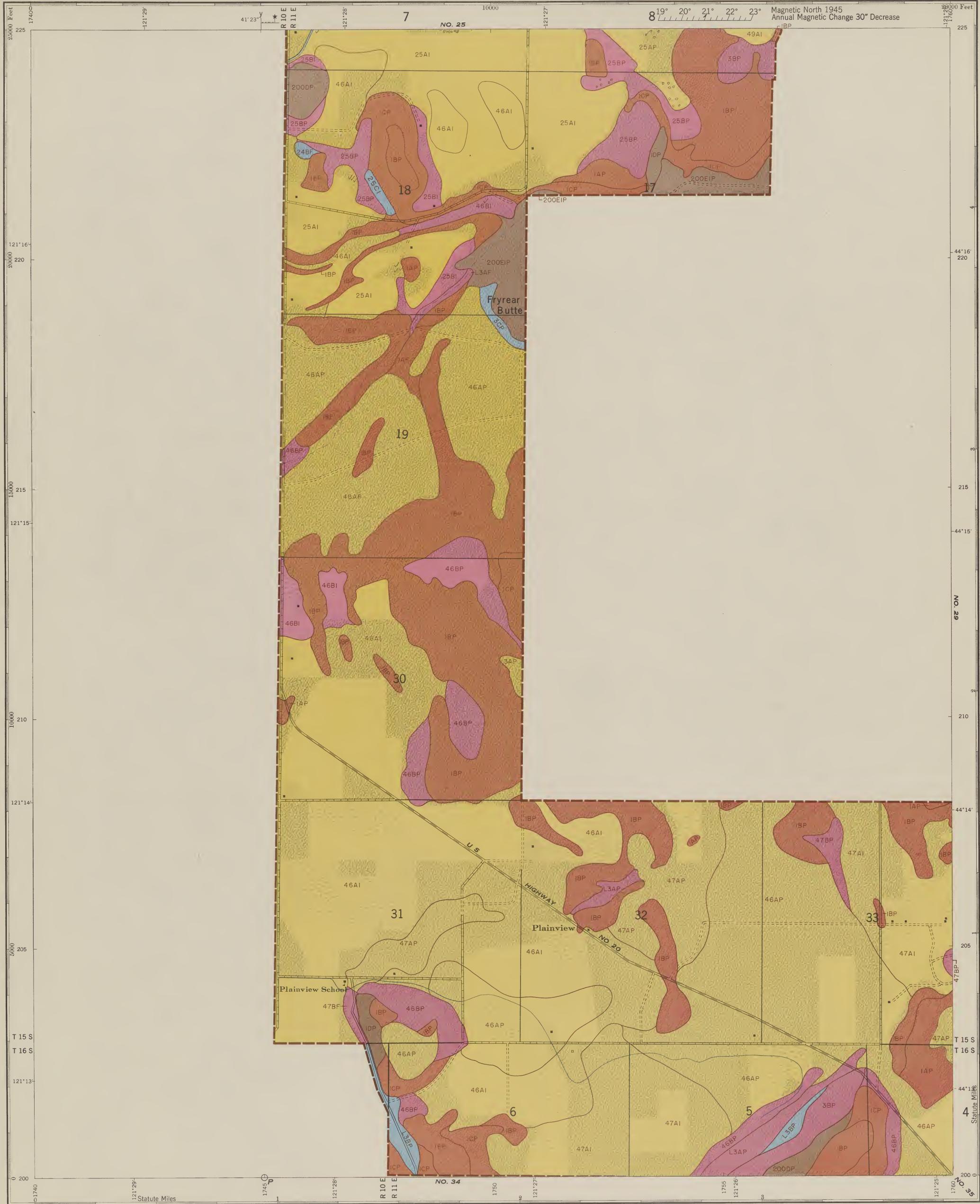


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Diagram from U.S.G.S. quadrangles. Revision 1 base
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5000-foot grid based upon Oregon system (North Zone)
of one coordinate with last three digits of grid numbers
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ASTRONOMICAL MEAN DECLINATION 104°48'
MAGNETIC DECLINATION 1°30' WEST

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

I-Nearly level, deep, permeable soils having no special limitations in use.

II-Nearly level, moderately deep, permeable soils having minor limitations in use.

III-Moderately deep soils with stone, slope or texture limitations.

SUITABLE FOR OCCASIONAL CULTIVATION
IRRIGATION PRESUMED FEASIBLE

IV-Shallow, droughty or moderately sloping soils limited to pasture use.

NOT SUITABLE FOR CULTIVATION

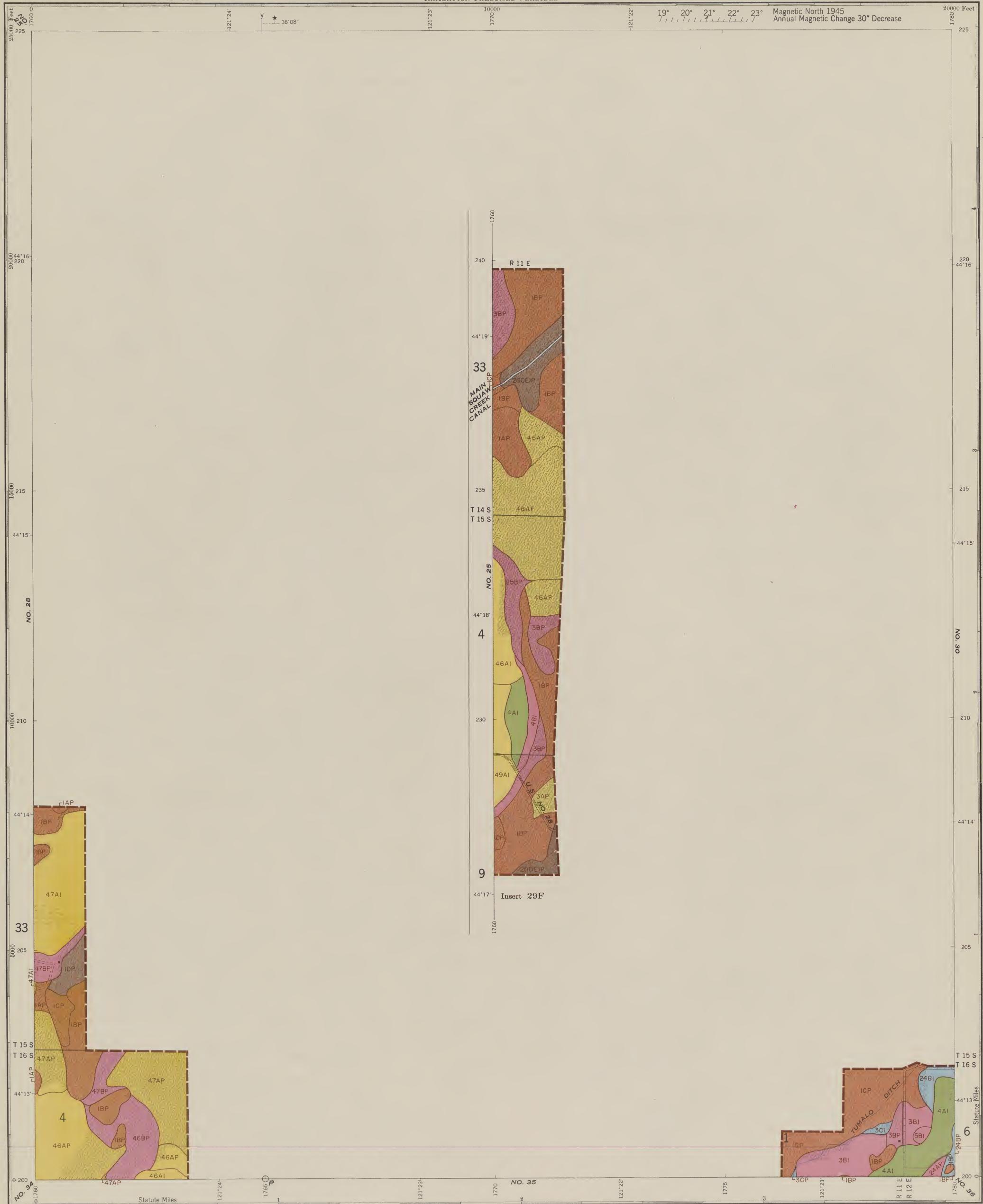
V-Sloping, very stony lands suited for range, having minor conservation needs.

VII-Steep, very stony lands suited for range, having major conservation needs.

NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE

VIII-Very steep, stony or droughty lands; essentially non-productive.

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



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DESCHUTES IRRIGATION PROJECT

Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

27C2R

2 - Sheet erosion, 25 percent to 75 percent lost. R - Wind erosion, 25 percent to 75 percent removed by wind.

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LIGHT AND COARSE TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIAL

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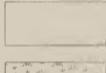
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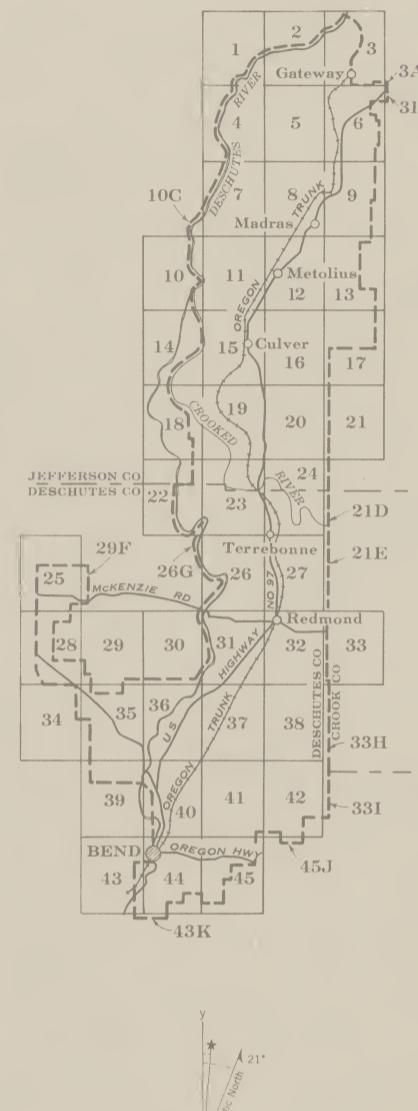
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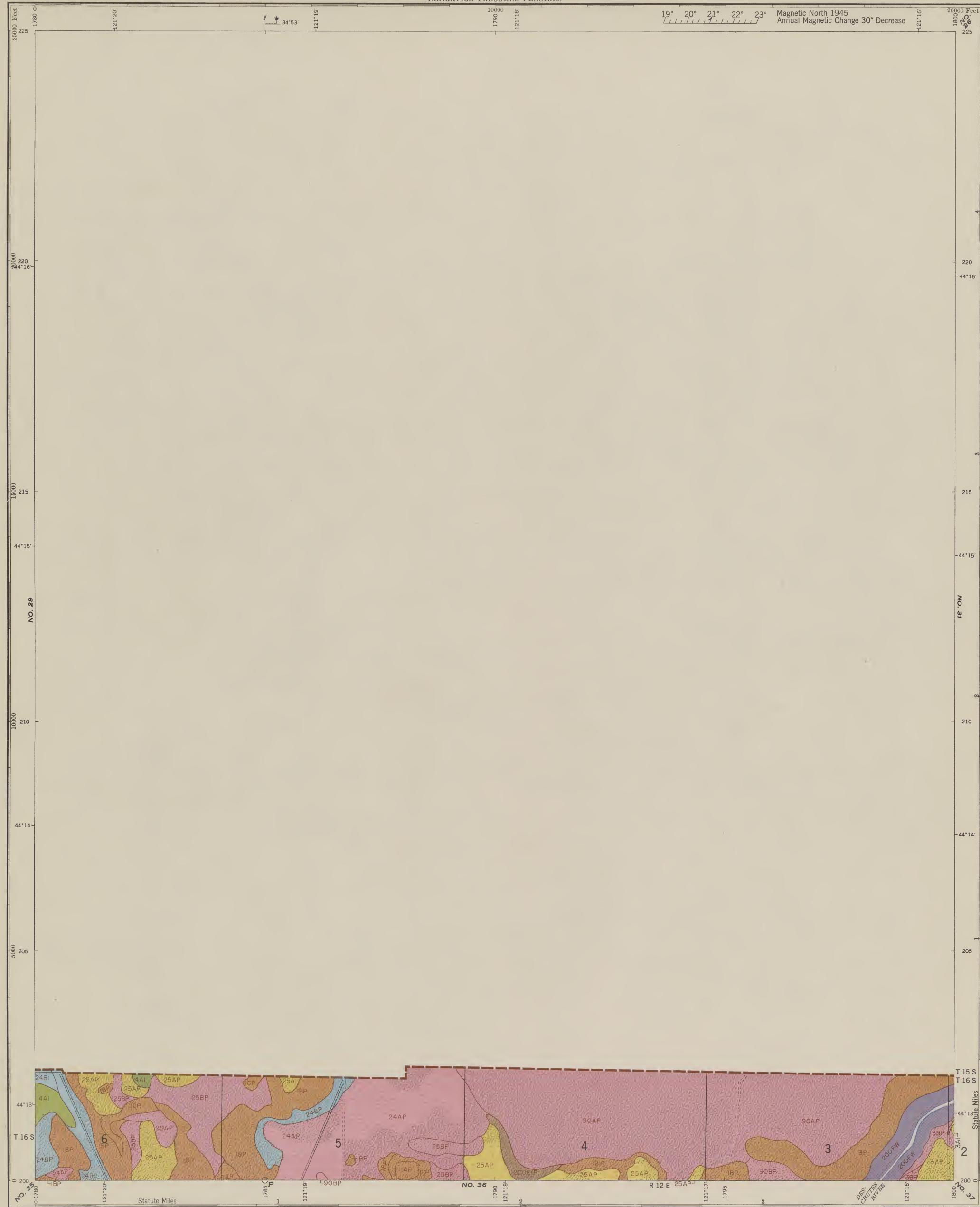
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DESCHUTES IRRIGATION PROJECT

Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

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- 16 - Metolius sandy loam
- 47 - Deschutes loamy coarse sand
- 46 - Deschutes loamy sand
- 49 - Deschutes coarse loamy loam
- 65 - Deschutes loamy sand over riverwash

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- 30 - Lamonta loam
- 31 - Lamonta sandy clay loam
- 32 - Lamonta stony sandy clay loam
- 33 - Lamonta stony loam
- 34 - Lamonta sandy clay loam, shallow phase
- 84 - Lamonta loam, shallow phase

LIGHT TO HEAVY TEXTURED SOILS WITH HEAVY TEXTURED SUBSOILS OVER LIME HARDPAN

- 39 - Madras loam
- 40 - Madras sandy loam
- 58 - Madras loamy loam
- 85 - Madras clay loam

LIGHT TEXTURED SOIL WITH DEEP/LIGHT TEXTURED SUBSOIL OVER PERMEABLE MATERIALS

- 42 - Metolius sandy loam
- 60 - Metolius loamy loam
- 61 - Metolius lime sandy loam

POORLY DRAINED, LIGHT TEXTURED SURFACE SOIL WITH HEAVY TEXTURED SUBSOIL OVER BASALT OR MIXED, CONSOLIDATED MATERIALS

- 51 - Odin clay loam
- 52 - Odin sandy loam
- 62 - Metolius sandy loam
- 63 - Metolius loamy sand
- 6X - Lemhi sandy loam

LIGHT TO HEAVY TEXTURED SOIL WITH HEAVY TEXTURED SUBSOILS MODERATELY CONSOLIDATED MATERIALS

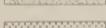
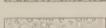
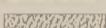
- 74 - Redmond loam
- 75 - Redmond sandy loam
- 76 - Redmond clay loam

MISCELLANEOUS SOILS

- 100 - Rough broken land
- 200 - Rough stony land
- RW - Riverwash
- 91 - Volcanic ash
- 1 - Scabland

LAND USE

Reproduced in gray



SLOPE

	DOMINANT PERCENT		DOMINANT PERCENT
A	0 to 3	D	13 to 20
B	4 to 7	E	21 to 35
C	8 to 12	F	36 and over

GEOGRAPHIC SYMBOLS

WORKS AND STRUCTURES

- Roads - Hard-surfaced
- Semihard-surfaced
- Dirt (good motor)
- Dirt (poor motor or private)
- Bridge
- Culvert
- Ford
- Railroads Single track

WORKS AND STRUCTURES

- Railroads - Abandoned
- Bridge
- Grade crossing
- Railroad under
- Railroad over
- Tunnel
- Buildings in general
- Church
- School

WORKS AND STRUCTURES

- Tanks
- Power line
- Telephone line
- Pipe line
- Cemeteries
- Dams
- Gravel pit
- Mine quarry

BOUNDARIES, MARKS, AND MONUMENTS

- County
- Township
- Section
- City
- Survey boundary
- Stony areas
- Rock outcrops
- Escarpe

DRAINAGE (in blue)

- Perennial streams
- Intermittent streams
- Canals or ditches
- Canal tunnel
- Water tanks
- Ponds, reservoirs
- Spring
- Marsh

Streams shown in blue

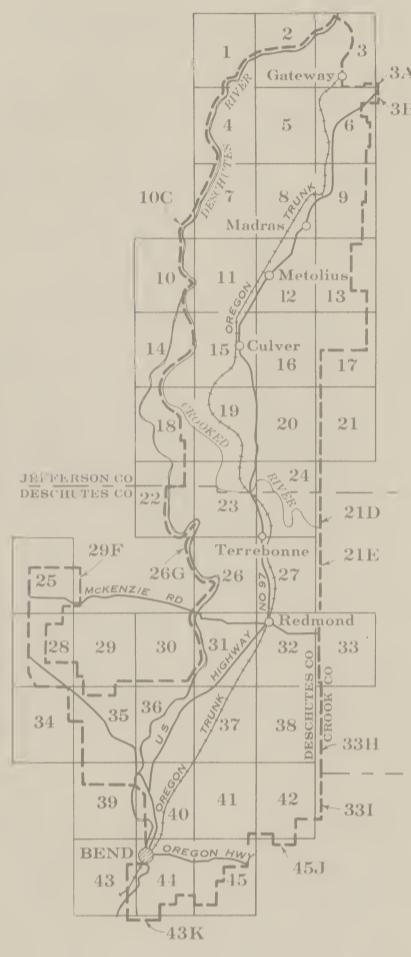
Water tanks shown in blue

Ponds, reservoirs shown in blue

Spring shown in blue

Marsh shown in blue

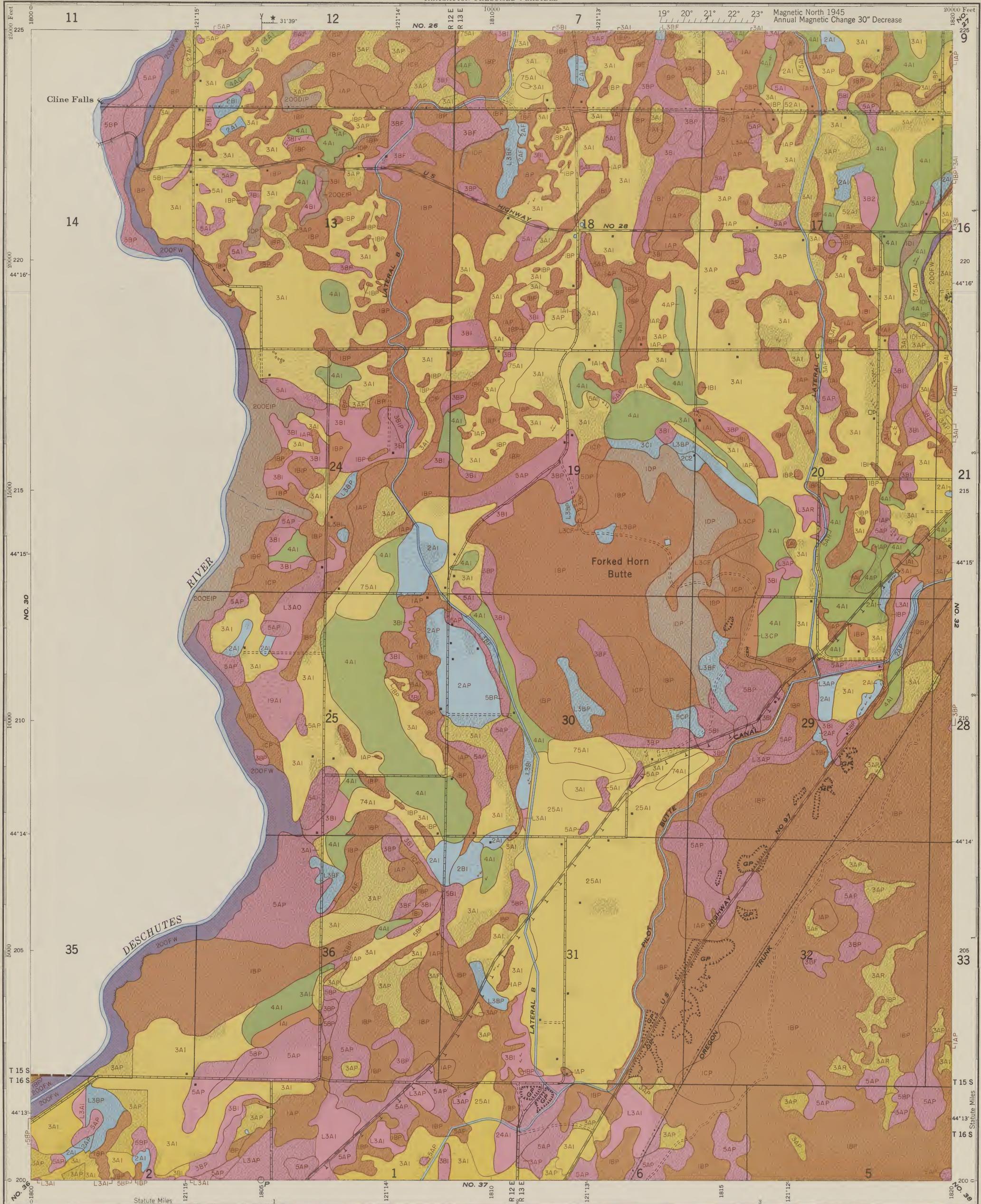
INDEX



USE DIAGRAM ONLY TO OBTAIN NUMERICAL VALUES
TO DETERMINE MAGNETIC NORTH LINE. CONNECT THE
PIVOT POINT "P" ON THE SOUTH EDGE OF THE MAP
WITH THE ARROW AS SHOWN ON THE DEGREE
SCALE AT THE NORTH EDGE OF THE MAP.

Base from U.S.G.S. quadrangles. Revision 1948
and conservation survey compiled by Soil Conservation
Service from aerial photographs. Lambert projection.
5000 foot grid based upon Oregon system (North Zone)
of plane coordinates with last three digits of grid number
omitted. Polyconic projection indicated by margin 685.

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

SUITABLE FOR OCCASIONAL CULTIVATION

NOT SUITABLE FOR CULTIVATION

**NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE**

- I-Nearly level, deep, permeable soils having no special limitations in use.

- II-Nearly level, moderately deep, permeable having minor limitations in use.

- III-Moderately deep soils with stone, slope or texture limitations.

- IV-Shallow, droughty or moderately sloping soils limited to pasture use.

- VI-Sloping, very stony lands suited for range
having minor conservation needs.

- VII-Steep, very stony lands suited for range, having major conservation needs.

- VIII-Very steep, stony or droughty lands; essentially non-productive.

DESCHUTES IRRIGATION PROJECT

Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

27-²⁷ Soil type, Madras sandy loam. D- Slope, 8 percent to 12 percent
28- Sheet erosion, 25 percent to 75 percent lost. R- Wind erosion, 25 percent to 75 percent removed by wind

SOILS

LIGHT AND COARSE TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIAL

- 2- Deschutes sandy loam, shallow phase
- 3- Deschutes sandy loam
- 43- Era sandy loam
- L3- Deschutes loamy sand
- 4- Deschutes sandy loam, deep phase
- 5- Deschutes loamy loam
- 19- Deschutes loamy loam
- S43- Era loamy sandy loam

LIGHT AND MEDIUM TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER MODERATELY CONSOLIDATED MATERIAL

- 10- Madras sandy loam, shallow phase
- 10c- Deschutes sandy loam, shallow phase
- 12- Madras sandy loam, deep phase
- 12c- Deschutes sandy loam, deep phase
- 13- Madras stony loam
- 13c- Deschutes stony sandy loam
- 90- Deschutes stony loamy loam
- 26- Deschutes loamy sand
- 5c- Deschutes loamy sand
- 24- Deschutes loamy sand

EROSION

SHEET EROSION

- 1- Less than 25 percent of the surface soil lost
- 2- 25 percent to 75 percent of the surface soil lost
- 3- 75 percent to 100 percent of the surface soil lost or up to 25 percent of the B horizon lost
- 4- 25 percent to 50 percent of the B horizon lost

GULLY EROSION

- 7- Occasional shallow gullies
- 7c- Occasional gullies unremovable by farm machinery
- 8- Shallow gullies less than 100 feet apart laterally or more than 5 per acre
- 8c- Uncrossable gullies less than 100 feet apart laterally or more than 5 per acre

WIND EROSION

- P- Up to 25 percent of surface soil removed
- R- 25 percent to 75 percent of surface soil removed
- S- 75 percent to 100 percent of surface soil removed

WIND DEPOSITS

- F- Accumulations 0 inches to 6 inches deep, level
- H- Accumulations 6 inches to 12 inches deep, level
- K- Accumulations 6 inches to 12 inches deep, hummocky
- — Line accumulations too narrow to include within boundaries

MISCELLANEOUS

- W- Normal erosion
- O- No accelerated erosion
- E- Undifferentiated erosion (unclassified, minor areas)

EXPLANATION OF SYMBOL

27-²⁷ Soil type, Madras sandy loam. D- Slope, 8 percent to 12 percent

28- Sheet erosion, 25 percent to 75 percent lost. R- Wind erosion, 25 percent to 75 percent removed by wind

SOILS

LIGHT TO HEAVY TEXTURE SOIL WITH MODERATELY HEAVY TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIALS

- 35- Agency sandy loam
- 37- Agency gravelly loam
- 70- Item loam
- 36- Agency loam
- 63- Agency loamy loam
- 71- Gom clay loam
- 73- Gom clay loam, shallow phase

LIGHT TO HEAVY TEXTURE SOIL WITH HEAVY TEXTURED SUBSOILS OVER LIME HARDPAN

- 39- Madras loam
- 40- Madras sandy loam
- 68- Madras stony loam
- 85- Madras clay loam

LIGHT TEXTURED SOIL WITH DEEP, LIGHT TEXTURED SUBSOIL OVER PERMEABLE MATERIALS

- 42- Metolius sandy loam
- 60- Metolius loamy loam
- 61- Metolius fine sandy loam

POORLY DRAINED, LIGHT TEXTURED SURFACE SOIL WITH HEAVY TEXTURED SUBSOIL OVER BASALT OR MIXED CONSOLIDATED MATERIALS

- 51- Odell clay loam
- 52- Odell sandy loam

LIGHT TO HEAVY TEXTURE SOIL WITH HEAVY TEXTURED SUBSOILS MODERATELY CONSOLIDATED MATERIALS

- 74- Redmond loam
- 75- Redmond sandy loam
- 75d- Redmond loamy loam, deep phase
- 76- Redmond clay loam

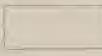
MISCELLANEOUS SOILS

- 100- Rough broken land
- 200- Rough broken land
- RW- Riverwash
- 91- Volcanic ash
- 1- Scabland

LAND USE

Reproduced in gray

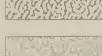
Cultivated field, annual and perennial crops such as grain, hay, etc., alfalfa, clover, and grasses



Rangeland, Land formerly rangeland now abandoned to annual grasses, crested wheat grass, or brush



Rangeland, Annual or perennial grasses, or sagebrush



Woodland, Larvae or Ponderosa pine



Forest



Rangeland and timber land



SLOPE

	DOMINANT PERCENT		DOMINANT PERCENT
A	0 to 3	D	13 to 20
B	4 to 7	E	21 to 35
C	8 to 12	F	36 and over

GEOGRAPHIC SYMBOLS

WORKS AND STRUCTURES

- Roads- Hard-surfaced
- Semihard-surfaced
- Dirt (good motor)
- Dirt (poor motor or private)
- Bridge
- Divert
- End
- Railroads- Single track

WORKS AND STRUCTURES

- Railroads- Assembled
- Bridge
- Grade crossing
- Railroad under
- Railroad over
- Tunnel
- Buildings in general
- Church
- School

WORKS AND STRUCTURES

- Trees
- Power line
- Telephone line
- Pipe line
- Canal
- Gravel pit
- Mine quarry

BOUNDARIES, MARKS, AND MONUMENTS

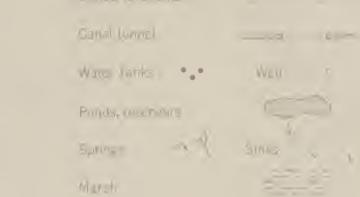
- County
- Township
- Section
- City
- Survey boundary
- Survey monument
- Boundary
- Rock outcrop
- Escarpment

DRAINAGE (in blue)

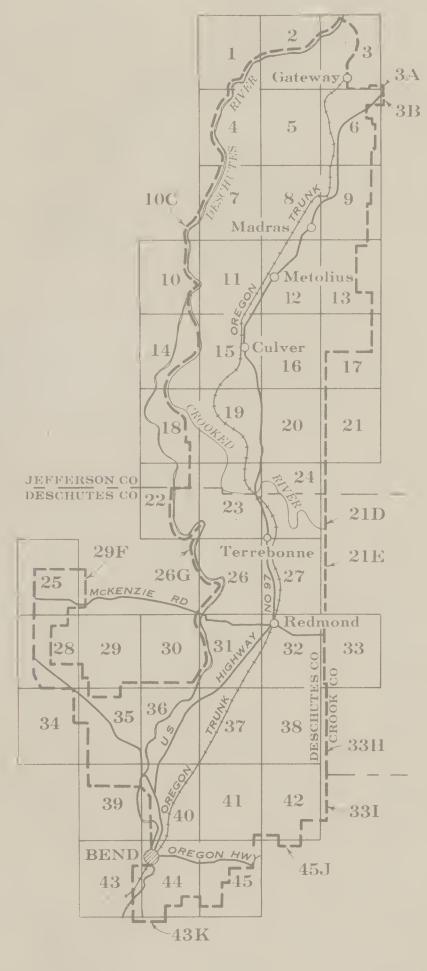
- Perennial streams
- Intermittent streams
- Drainage ditch
- Canal (irrigation)
- Water tanks
- Ponds, reservoirs
- Spring
- Sink
- Marsh

USE DIAGRAM ONLY TO OBTAIN NUMERICAL VALUES. TO DETERMINE MAGNETIC NORTH LINE, CONNECT THE PIVOT POINT "P" ON THE SOUTH EDGE OF THE MAP WITH THE ARROW AS SHOWN ON THE DEGREE SCALE AT THE NORTH EDGE OF THE MAP.

Base from 0.5° to 6°, mean angles. Revises 1945 and conservation values compiled by Soil Conservation Service from aerial photographs. Lambert projection. 1:625,000 to 1:100,000 Oregon system (North Zone). Values overlaid with last three digits of grid number. Points projected from margin table.

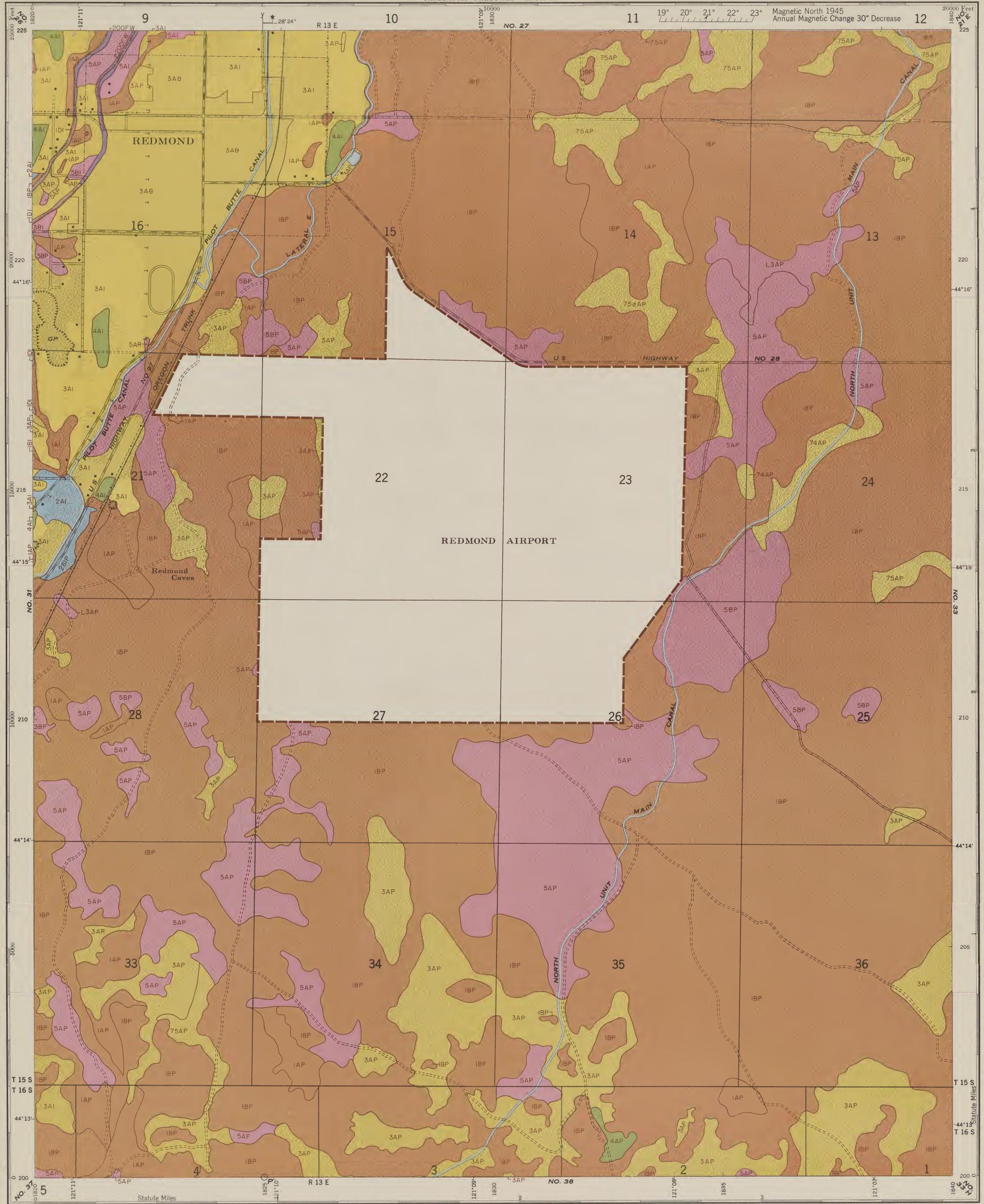


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OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE

DESCHUTES IRRIGATION PROJECT
DESCHUTES & JEFFERSON COUNTIES



SUITABLE FOR CULTIVATION

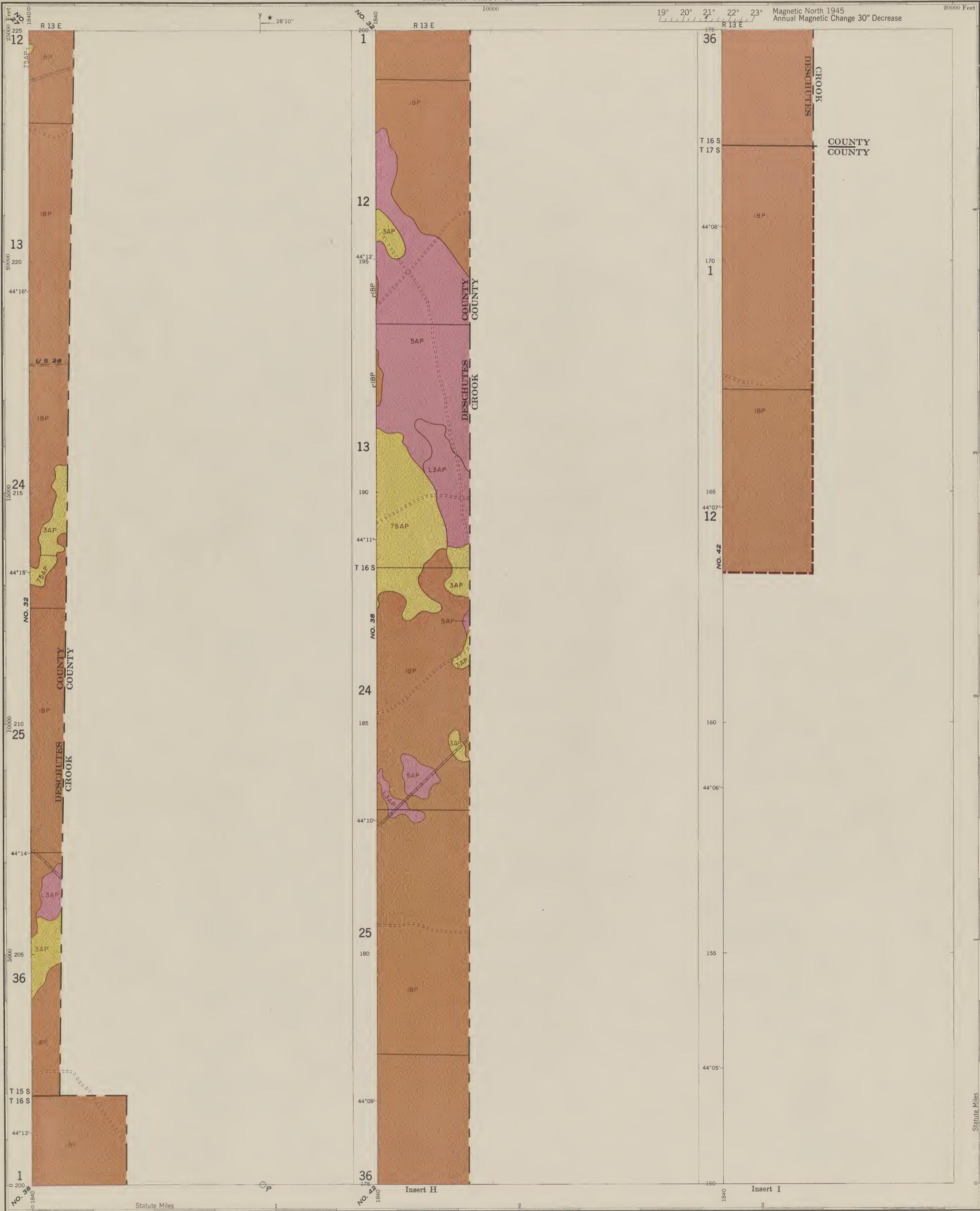
**SUITABLE FOR OCCASIONAL
CULTIVATION**

NOT SUITABLE FOR CULTIVATION

**NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE**

- I-Nearly level, deep, permeable soils having no special limitations in use.
II-Nearly level, moderately deep, permeable soils having minor limitations in use.
III-Moderately deep soils with stone, slope or texture limitations.
IV-Shallow, droughty or moderately sloping soils limited to pasture use.
V-Sloping, very stony lands suited for range, having minor conservation needs.
VI-Steep, very stony lands suited for range, having major conservation needs.
VII-Very steep, stony or droughty lands; essentially non-productive.

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED "FEASIBLE"



SUITABLE FOR CULTIVATION

I-Nearly level, deep, permeable soils having no special limitations in use.

II-Nearly level, moderately deep, permeable soils having minor limitations in use.

III-Moderately deep soils with stone, slope or texture limitations.

SUITABLE FOR OCCASIONAL CULTIVATION

IV-Shallow, droughty or moderately sloping soils limited to pasture use.

NOT SUITABLE FOR CULTIVATION

V-Sloping, very stony lands suited for range, having minor conservation needs.

VI-Steep, very stony lands suited for range, having major conservation needs.

NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE

VII-Very steep, stony or droughty lands; essentially non-productive.

DESCHUTES IRRIGATION PROJECT

Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

27C2R
27-Soil type, Madras sandy loam, C-Slope, 8 percent to 12 percent.
28-Street erosion, 25 percent to 75 percent lost. R-Wind erosion, 25 percent to 75 percent removed by wind.

SOILS

LIGHT AND COARSE TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIAL

- 2 - Deschutes sandy loam, shallow phase
- 3 - Deschutes sandy loam.
- 43 - Era sandy loam.
- 4 - Deschutes sandy loam, deep phase.
- 5 - Deschutes stony sandy loam.
- 19 - Deschutes stony loam.
- S43 - Era stony sandy loam.

LIGHT AND MEDIUM TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER MODERATELY CONSOLIDATED MATERIAL

- 10 - Madras sandy loam, shallow phase.
- 10c - Deschutes sandy loam, shallow phase.
- 12 - Madras sandy loam, deep phase.
- 12c - Deschutes sandy loam, deep phase.
- 13 - Madras stony sandy loam.
- 13c - Deschutes stony sandy loam.
- 90 - Deschutes stony sandy loam.
- 26 - Deschutes loamy sand.
- 9c - Deschutes loamy sand.
- 24 - Deschutes loamy sand.

EROSION

SHEET EROSION

- 1 - Less than 25 percent of the surface soil lost.
- 2 - 25 percent to 75 percent of the surface soil lost.
- 3 - 75 percent to 100 percent of the surface soil lost or up to 25 percent of the B horizon lost.
- 4 - 25 percent to 50 percent of the B horizon lost.

GULLY EROSION

- 7 - Occasional shallow gullies.
- ⑦ - Occasional gullies uncrossable by farm machinery.
- 8 - Shallow gullies less than 100 feet apart laterally or more than 3 per acre.
- ⑧ - Uncrossable gullies less than 100 feet apart laterally or more than 3 per acre.

WIND EROSION

- P - Up to 25 percent of surface soil removed.
- R - 25 percent to 75 percent of surface soil removed.
- S - 75 percent to 100 percent of surface soil removed.

WIND DEPOSITS

- F - Accumulations 0 inches to 6 inches deep, level.
- H - Accumulations 6 inches to 12 inches deep, level.
- K - Accumulations 6 inches to 12 inches deep, hummocky.
- — — — Line accumulations too narrow to include within boundaries.

MISCELLANEOUS

- W - Normal erosion.
- O - No accelerated erosion.
- θ - Undifferentiated erosion (farmland, urban area).

LIGHT TO HEAVY TEXTURED SOIL WITH MODERATELY HEAVY TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIALS

- 35 - Agency sandy loam.
- 37 - Agency gravelly loam.
- 70 - Gem loam.
- 36 - Agency loam.
- 63 - Agency stony loam.
- 71 - Gem clay loam.
- 73 - Gem clay loam, shallow phase.

LIGHT TO HEAVY TEXTURED SOILS WITH HEAVY TEXTURED SUBSOILS OVER LIME HARDPAN.

- 39 - Madras loam.
- 40 - Madras sandy loam.
- 68 - Madras stony loam.
- 85 - Madras clay loam.

LIGHT TEXTURED SOIL WITH DEEP, LIGHT TEXTURED SUBSOIL OVER PERMEABLE MATERIALS.

- 42 - Metolius sandy loam.
- 60 - Metolius sandy loam.
- 61 - Metolius fine sandy loam.

LAND USE

Reproduced in gray

Cultivated land, annual and perennial crops such as grain, row crops, alfalfa, clover and grasses

- 62 - Metolius sandy loam.
- 92 - Metolius loamy sand.
- 5X - Laidlaw sandy loam.

POORLY DRAINED LIGHT TEXTURED SURFACE SOIL WITH HEAVY TEXTURED SUBSOIL OVER BASALT OR MIXED CONSOLIDATED MATERIALS

- 51 - Odin clay loam.
- 52 - Odin sandy loam.

LIGHT TO HEAVY TEXTURED SOIL WITH HEAVY TEXTURED SUBSOILS MODERATELY CONSOLIDATED MATERIALS

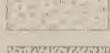
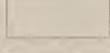
- 74 - Redmond loam.
- 75 - Redmond sandy loam.
- 75d - Redmond sandy loam, deep phase.
- 76 - Redmond clay loam.

MISCELLANEOUS SOILS

- 100 - Rough broken land.
- 200 - Rough stony land.
- RW - Riverwash.
- 91 - Volcanic ash.
- 1 - Scabland.

LAND USE

Reproduced in gray



SLOPE

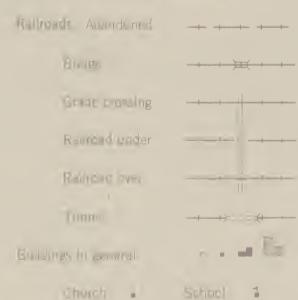
	DOMINANT PERCENT		DOMINANT PERCENT
A	0 to 3	D	13 to 20
B	4 to 7	E	21 to 35
C	8 to 12	F	36 and over

GEOGRAPHIC SYMBOLS

WORKS AND STRUCTURES



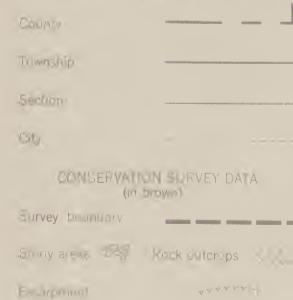
WORKS AND STRUCTURES



WORKS AND STRUCTURES



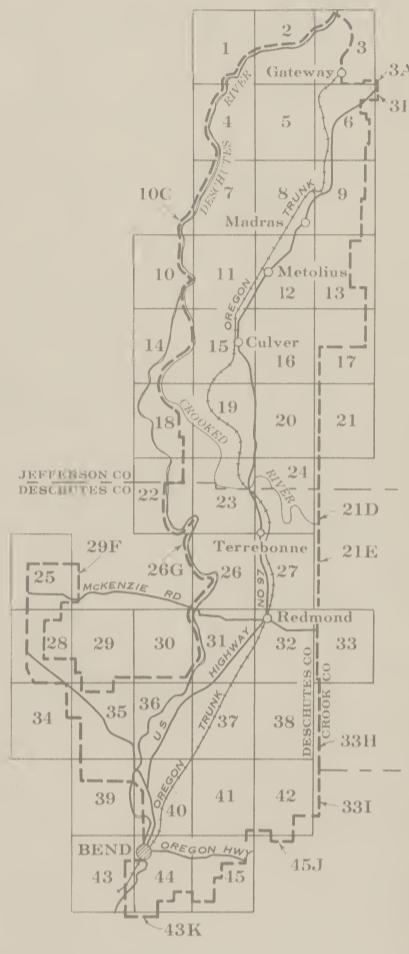
BOUNDARIES, MARKS, AND MONUMENTS



DRAINAGE (in blue)



INDEX



Maximum Mean Declination, 1945
Aerial Magnetic Change 1-0 West

USE DIAGRAM ONLY TO OBTAIN NUMERICAL VALUES.
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PIVOT POINT "P" ON THE SOUTH EDGE OF THE MAP
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Base from U.S.G.S. quadrangles. Revisions to base
and conservation survey compiled by Soil Conservation
Service from aerial photographs. Lambert projection
Map grid based upon Oregon system (North Zone)
State coordinates with first three digits of grid number
omitted. Bearing direction indicated by marginal tick.

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

SUITABLE FOR OCCASIONAL
CULTIVATION

NOT SUITABLE FOR CULTIVATION

NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE

I-Nearly level, deep, permeable soils having no special limitations in use.

II-Nearly level, moderately deep, permeable soils having minor limitations in use.

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VII-Steep, very stony lands suited for range, having major conservation needs.

VIII-Very steep, stony or droughty lands; essentially non-productive.

DESCHUTES IRRIGATION PROJECT

Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

2/C2R

27 Soil type Madras sandy loam. C. Slope, 8 percent to 12 percent.
2 Sheet erosion 35 percent to 75 percent lost. R Wind erosion, 25 percent to 75 percent removed by wind.

SOILS

LIGHT AND COARSE TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIAL

- 2 - Deschutes sandy loam, shallow phase.
- 3 - Deschutes sandy loam.
- 43 - Era sandy loam.
- L3 - Deschutes loamy sand.
- 4 - Deschutes sandy loam, deep phase.
- 5 - Deschutes stony sandy loam.
- 19 - Deschutes stony loam.
- S43 - Era stony sandy loam.

LIGHT AND MEDIUM TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER MODERATELY CONSOLIDATED MATERIAL

- 10 - Madras sandy loam, shallow phase.
- 10c - Deschutes sandy loam, shallow phase.
- 12 - Madras sandy loam, deep phase.
- 12c - Deschutes sandy loam, deep phase.
- 13 - Madras stony sandy loam.
- 13c - Deschutes stony sandy loam.
- 90 - Deschutes stony sandy loam.
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- 9c - Deschutes loamy sand.
- 24 - Deschutes loamy sand.

EROSION

SHEET EROSION

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- 2 - 25 percent to 75 percent of the surface soil lost.
- 3 - 75 percent to 100 percent of the surface soil lost or up to 25 percent of the B horizon lost.
- 4 - 25 percent to 50 percent of the B horizon lost.

GULLY EROSION

- 7 - Occasional shallow gullies.
- ⑦ - Occasional gullies uncrossable by farm machinery.
- 8 - Shallow gullies less than 10 feet apart laterally or more than 3 per acre.
- ⑧ - Uncrossable gullies less than 100 feet apart laterally or more than 3 per acre.

WIND EROSION

- P - Up to 25 percent of surface soil removed.
- R - 25 percent to 75 percent of surface soil removed.
- S - 75 percent to 100 percent of surface soil removed.

WIND DEPOSITS

- F - Accumulations 0 inches to 6 inches deep, level.
- H - Accumulations 6 inches to 12 inches deep, level.
- K - Accumulations 6 inches to 12 inches deep, hummocky.
- — — Line accumulations too narrow to include within boundaries.

MISCELLANEOUS

- W - Normal erosion.
- O - No accelerated erosion.
- U - Undifferentiated erosion (farmsteads, urban areas).

SOILS

LIGHT TO HEAVY TEXTURED SOIL WITH MODERATELY HEAVY TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIALS.

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- 37 - Agency gravelly loam.
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- 63 - Agency stony loam.
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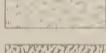
LAND USE

Reproduced in gray

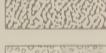
Cultivated land, annual and perennial crops such as grain, row crops, alfalfa, clover and grasses



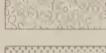
Rangeland - Land formerly cultivated but now abandoned, in annual grasses, crested wheat grasses, or like



Rangeland - Annual or perennial grasses or sagebrush



Woodland: Juniper or Ponderosa pine



Idle land



Farmstead and urban area



SLOPE

	Dominant Percent		Dominant Percent
A	0 to 3	D	13 to 20
B	4 to 7	E	21 to 35
C	8 to 12	F	36 and over

GEOGRAPHIC SYMBOLS

WORKS AND STRUCTURES

- Roads- Hard-surfaced
- Semihard- surfaced
- Dirt (good motor)
- Dirt (poor motor or private)
- Bridge
- Culvert
- Ford
- Railroads Single track

WORKS AND STRUCTURES

- Railroad - Abandoned
- Bridge
- Grade crossing
- Railroad under
- Railroad over
- Tunnel
- Buildings in general
- Church
- School

WORKS AND STRUCTURES

- Tanks
- Power line
- Telephone line
- Pipe line
- Cemetery
- Dams
- Gravel pit
- Mine quarry

BOUNDARIES, MARKS, AND MONUMENTS

- County
- Township
- Section
- City
- CONSERVATION SURVEY DATA (in brown)
- Survey boundary
- Silv. areas
- Rock outcrops
- Escarpment

DRAINAGE (in blue)

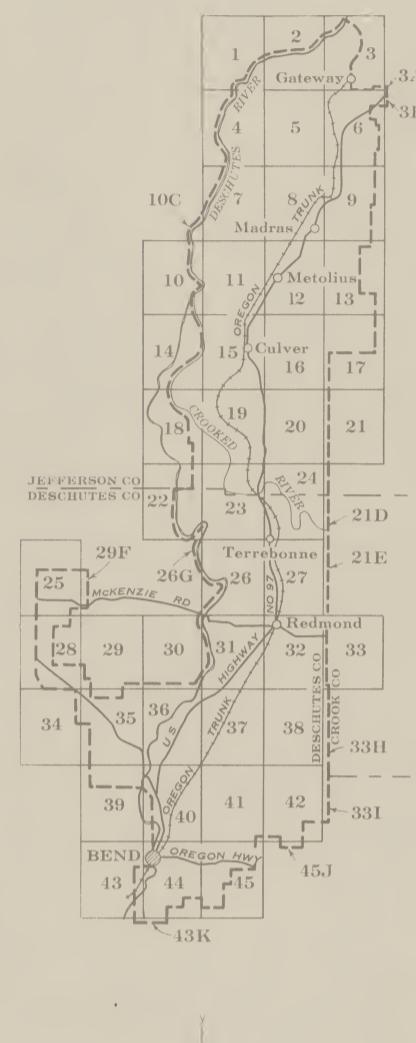
- Perennial streams
- Intermittent streams
- Canal tunnel
- Water tanks
- Ponds, reservoirs
- Springs
- Sink
- Marsh

Approximate Mean Declination, 1945
Annual Magnetic Change 7.0° West

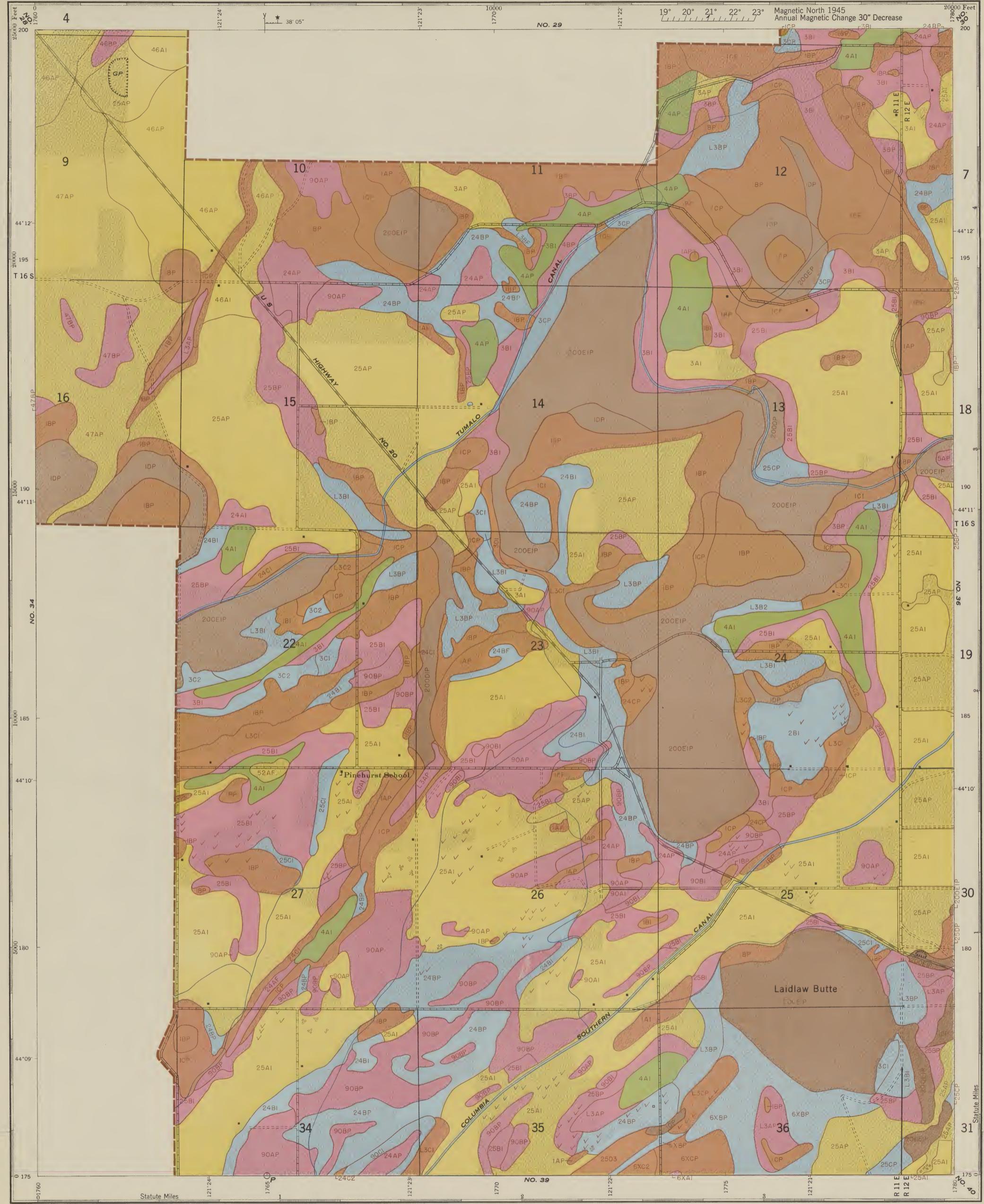
USE DIAGRAM ONLY TO OBTAIN NUMERICAL VALUES TO DETERMINE MAGNETIC NORTH LINE. CONNECT THE PIVOT POINT 'P' ON THE SOUTH EDGE OF THE MAP WITH THE ARROW AS SHOWN ON THE DEGREE SCALE AT THE NORTH EDGE OF THE MAP.

Base from U.S.G.S. quadrangles. Revision 1 base and conservation survey compiled by Soil Conservation Service from aerial photographs. Lambert projection. 50,000 foot grid based upon Oregon system (North Zone). Latitude coordinates with last three digits of grid numbers omitted. Projection correction indicated by marginal ticks.

INDEX



OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

**SUITABLE FOR OCCASIONAL
CULTIVATION**

NOT SUITABLE FOR CULTIVATION

**NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE**

- | | | | | | | |
|---|--|---|--|--|--|---|
| I-Nearly level, deep, permeable soils having no special limitations in use. | II-Nearly level, moderately deep, permeable soils having minor limitations in use. | III-Moderately deep soils with stone, slope or texture limitations. | IV-Shallow, droughty or moderately sloping soils limited to pasture use. | V-Sloping, very stony lands suited for range, having minor conservation needs. | VII-Steep, very stony lands suited for range, having major conservation needs. | VIII-Very steep, stony or droughty lands; essentially non-productive. |
|---|--|---|--|--|--|---|

DESCHUTES IRRIGATION PROJECT

Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

27C2R

21 Soil type, Madras sandy loam. C- Slope, 8 percent to 12 percent.
22 Sheet erosion, 25 percent to 75 percent lost. R- Wind erosion, 25 percent to 75 percent removed by wind.

SOILS

LIGHT AND COARSE TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIAL

- 2 - Deschutes sandy loam, shallow phase
- 3 - Deschutes sandy loam
- 43 - Era sandy loam
- L3 - Deschutes loamy sand
- 4 - Deschutes sandy loam, deep phase
- 5 - Deschutes stony sandy loam
- 19 - Deschutes stony loam
- S43 - Era stony sandy loam

LIGHT AND MEDIUM TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER MODERATELY CONSOLIDATED MATERIAL

- 10 - Madras sandy loam, shallow phase
- 10c - Deschutes sandy loam, shallow phase
- 12 - Madras sandy loam, deep phase
- 12c - Deschutes sandy loam, deep phase
- 13 - Madras stony sandy loam
- 14 - Deschutes stony sandy loam
- 15 - Deschutes stony sandy loam
- 26 - Deschutes loamy sand
- 9c - Deschutes loamy sand
- 24 - Deschutes loamy sand

EROSION

SHEET EROSION

- 1 - Less than 25 percent of the surface soil lost
- 2 - 25 percent to 75 percent of the surface soil lost
- 3 - 75 percent to 100 percent of the surface soil lost or up to 25 percent of the B horizon lost
- 4 - 25 percent to 50 percent of the B horizon lost

GULLY EROSION

- 7 - Occasional shallow gullies
- 12 - Occasional gullies uncrossable by farm machinery
- 8 - Shallow gullies less than 100 feet apart laterally or more than 3 per acre
- 8a - Uncrossable gullies less than 100 feet apart laterally or more than 3 per acre

WIND EROSION

- P - Up to 25 percent of surface soil removed
- R - 25 percent to 75 percent of surface soil removed
- S - 75 percent to 100 percent of surface soil removed

WIND DEPOSITS

- F - Accumulations 0 inches to 6 inches deep, level
- H - Accumulations 6 inches to 12 inches deep, level
- K - Accumulations 6 inches to 12 inches deep, hummocky
- — Line accumulations too narrow to include within boundaries

MISCELLANEOUS

- W - Normal erosion
- O - No accelerated erosion
- O - Undifferentiated erosion (farmsteads, urban areas)

SOILS

LIGHT TO HEAVY TEXTURED SOIL WITH MODERATELY HEAVY TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIALS

- 35 - Agency sandy loam
- 37 - Agency gravelly loam
- 70 - Gem gravelly loam
- 36 - Agency silty loam
- 62 - Agency silty loam
- 71 - Gem clay loam
- 73 - Gem clay loam, shallow phase

LIGHT TO HEAVY TEXTURED SOILS WITH HEAVY TEXTURED SUBSOILS OVER LIME HARDPAN

- 39 - Lamonta loam
- 40 - Madras sandy loam
- 78 - Madras silty loam
- 85 - Madras clay loam

LIGHT TEXTURED SOIL WITH DEEP, LIGHT TEXTURED SUBSOIL OVER PERMEABLE MATERIALS

- 42 - Metolius sandy loam
- 60 - Metolius sandy loam
- 61 - Metolius fine sandy loam

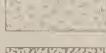
LAND USE

Reproduced in gray

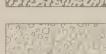
Cultivated land, annual and perennial crops such as grain, row crops, alfalfa, clover and grasses



Rangeland: Land formerly cultivated but now abandoned; annual grasses, ground wheat grasses, or broom



Woodland: Juniper or Ponderosa pine



Idle land



Farmstead and Urban areas



SLOPE

DOMINANT PERCENT

- | | | | |
|---|---------|---|-------------|
| A | 0 to 3 | D | 13 to 20 |
| B | 4 to 7 | E | 21 to 35 |
| C | 8 to 12 | F | 36 and over |

DOMINANT PERCENT

- | | | | |
|---|---------|---|-------------|
| A | 0 to 3 | D | 13 to 20 |
| B | 4 to 7 | E | 21 to 35 |
| C | 8 to 12 | F | 36 and over |

GEOGRAPHIC SYMBOLS

WORKS AND STRUCTURES

- Roads - Hard-surfaced
- Semihard- surfaced
- Dirt (good motor)
- Dirt (poor motor or private)
- Bridge
- Culvert
- Ford
- Railroads - Single track

WORKS AND STRUCTURES

- Railroads - Abandoned
- Bridge
- Grade crossing
- Railroad under
- Railroad over
- Tunnel
- Buildings in general
- Church
- School

WORKS AND STRUCTURES

- Tanks
- Power line
- Telephone line
- Pipe line
- Cemeteries
- Dams
- Gravel pit
- Mine, quarry

BOUNDARIES, MARKS, AND MONUMENTS

- County
- Township
- Section
- City
- Survey boundary
- Stony areas
- Rock outcrops
- Escarpment

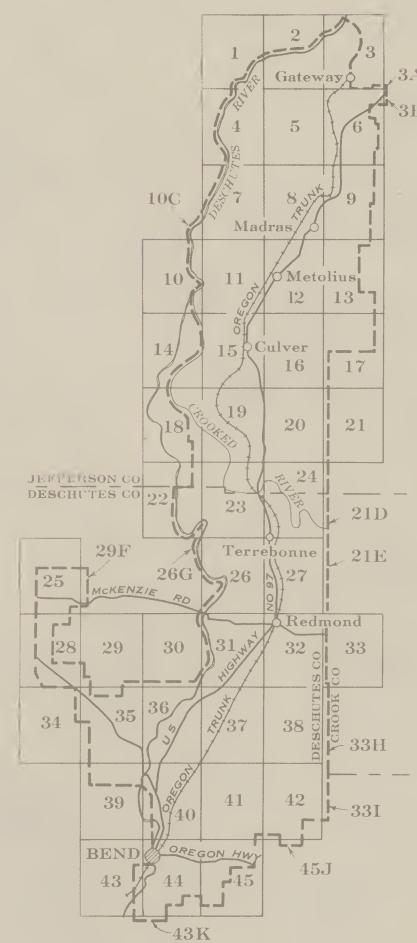
DRAINAGE (in blue)

- Perennial streams
- Intermittent streams
- Canals or ditches
- Canal tunnel
- Water tanks
- Ponds, reservoirs
- Springs
- Marsh

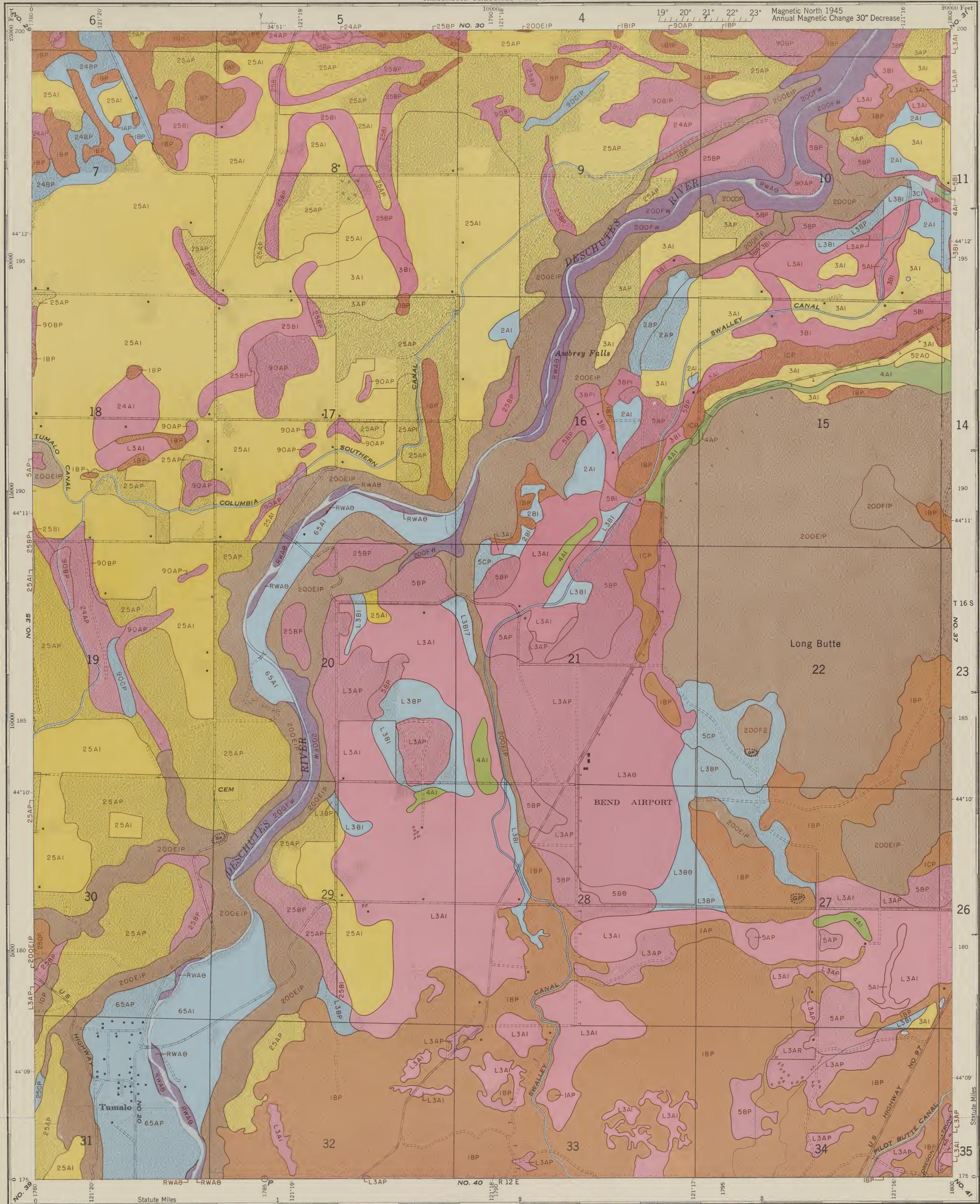
USE DIAGRAM ONLY TO OBTAIN NUMERICAL VALUES. TO DETERMINE MAGNETIC NORTH LINE, CONNECT THE PIVOT POINT "P" ON THE SOUTH EDGE OF THE MAP WITH THE ARROW AS SHOWN ON THE DEGREE SCALE AT THE NORTH EDGE OF THE MAP.

Approximate Mean Declination, 1945
Arrow: Magnetic Change 1°07' West
Base from U.S.G.S. quadrangles. Revisions to base and conservation survey compiled by Soil Conservation Service from aerial photographs. Lambert projection. 50'0" foot grid based upon Oregon system (North Zone). Grid plane coordinates with last three digits of grid numbers omitted. Polyconic projection indicated by marginal ticks.

INDEX



OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

I-Nearly level, deep, permeable soils having no special limitations in use.

II-Nearly level, moderately deep, permeable soils having minor limitations in use.

III-Moderately deep soils with stone, slope or texture limitations.

SUITABLE FOR OCCASIONAL CULTIVATION

IV-Shallow, droughty or moderately sloping soils limited to pasture use.

NOT SUITABLE FOR CULTIVATION

V-Sloping, very stony lands suited for range, having minor conservation needs.

VI-Steep, very stony lands suited for range, having major conservation needs.

NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE

DESCHUTES IRRIGATION PROJECT

Scale 1:15,810

LEGEND

EXPLANATION OF SYMBOL

SOILS

LIGHT AND COARSE TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIAL

- 2 - Deschutes sandy loam
- 3 - Deschutes sandy loam
- 43 - Eras sandy loam
- 43a - Deschutes loamy sand
- 4 - Deschutes sandy loam, dark olive
- 5 - Deschutes loamy loam
- 19 - Deschutes loamy loam
- 543 - Erie stony sandy loam

- 10 - Madras sandy loam
- 10a - Deschutes sandy loam
- 35 - Deschutes sandy loam
- 38 - Madras loam

- 16 - Madras sandy loam
- 47 - Deschutes loamy coarse sand
- 46 - Deschutes loamy sand
- 49 - Deschutes coarse loamy loam
- 65 - Deschutes loamy sand over fine-wash

- 10 - Madras sandy loam, yellow phase
- 10a - Deschutes loamy loam, shallow phase
- 12 - Madras sandy loam, deep phase
- 12c - Deschutes sandy loam, deep phase
- 13 - Madras stony sandy loam
- 14c - Deschutes stony sandy loam
- 90 - Deschutes stony sandy loam
- 26 - Deschutes loamy sand
- 5c - Deschutes loamy sand
- 24 - Deschutes loamy sand

EROSION

SHEET EROSION

- 1 - Less than 25 percent of the surface soil lost
- 2 - 25 percent to 75 percent of the surface soil lost
- 3 - 75 percent to 100 percent of the surface soil lost or up to 25 percent in the B horizon lost
- 4 - 25 percent to 66 percent of the B horizon lost

GULLY EROSION

- 5 - Discrete linear gullies
- 6 - V-shaped gullies eroded by farm machinery
- 8 - Shallow gullies less than 100 feet apart laterally or more than 3 per acre
- 9 - Deep gullies less than 100 feet apart laterally or more than 3 per acre

WIND EROSION

- 10 - Up to 25 percent of surface soil removed
- 11 - 25 percent to 75 percent of surface soil removed
- 12 - 75 percent to 100 percent of surface soil removed

WIND DEPOSITS

- F - Accumulations 0 inches to 6 inches deep, level
- H - Accumulations 6 inches to 12 inches deep, level
- K - Accumulations 6 inches to 12 inches deep, horizontally aligned
- M - Line accumulations from 0 to 100 feet apart horizontally

MISCELLANEOUS

- W - Normal erosion
- O - No accelerated erosion
- B - Undifferentiated erosion (bare land - bare ground)

EXPLANATION OF SYMBOL

SOILS

2 - Soil type Madras sandy loam, C - Slope 0 percent to 12 degrees
21 - Sheet erosion, 25 percent to 75 percent lost, H - Wind erosion, 25 percent to 75 percent removed by wind

SOILS

LIGHT TO HEAVY TEXTURED SOIL WITH MODERATELY TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIALS

- 37 - Agassiz sandy loam
- 37a - Agassiz gravelly loam
- 70 - Umatilla loam
- 36 - Apuron loam
- 43 - Armeria loamy loam
- 74 - Gilpin clay loam
- 73 - Gilpin clay loam, shallow phase

LIGHT TO HEAVY TEXTURED SOILS WITH HEAVY TEXTURED SUBSOILS OVER LIME HARDENED

- 39 - Lamont loam
- 40 - Lamont loamy loam
- 58 - Madras stony loam
- 85 - Madras loamy loam

LIGHT TEXTURED SOIL WITH DEEP, LIGHT TEXTURED SUBSOIL OVER PERMEABLE MATERIALS

- 42 - Metolius sandy loam
- 60 - Metolius sandy loam
- 61 - Metolius fine sandy loam

HEAVY SOILS

62 - Melville sandy loam

- 42 - Melville loamy sand
- 63 - Melville loamy loam

POORLY DRAINED LIGHT TEXTURED SURFACE SOIL WITH HEAVY TEXTURED SUBSOIL OVER BASALT OR MIXED CONSOLIDATED MATERIALS

- 51 - Odell clay loam
- 52 - Odell sandy loam

LIGHT TO HEAVY TEXTURED SOIL WITH HEAVY TEXTURED SUBSOILS MODERATELY CONSOLIDATED MATERIALS

- 74 - Redmond loam
- 75 - Redmond loamy loam
- 76d - Redmond sandy loam, deep phase
- 76 - Redmond clay loam

MISCELLANEOUS SOILS

- 100 - Rough broken soil
- 200 - Rough stony land
- RW - Riverbank
- 91 - Volcanic ash
- 1 - Scabland

LAND USE

Reproduced in gray

Cultivated land, annual and perennial crops such as grain, row crops, alfalfa, fruit and grapes



Rangeland, rangeland containing open grassy areas, annual grasses, crested wheat grasses or tame grasses



Woodland, Douglas or Pinonwood pine



Wetland



Forested and mixed area



SLOPE

Dominant Percent	Dominant Percent
A	1 to 3
B	4 to 7
C	8 to 12
	13 to 20
	21 to 35
	36 and over

GEOGRAPHIC SYMBOLS

WORKS AND STRUCTURES

- Roads: Hard-surfaced
- Roads: Soft-surfaced
- Railroads: Motor
- Railroads: Motor or private
- Bridge
- Canal
- Ford
- Railroad: Single track

WORKS AND STRUCTURES

- Railroads: Acquired
- Railroads: Built
- Canals: Existing
- Canals: Abandoned
- Railroads: Abandoned
- Railroads: New
- Power line
- Telephone line
- Pipe line
- Roads: Paved
- Roads: Gravel
- Roads: Gravel
- Church
- School

WORKS AND STRUCTURES

- Fence
- Power line
- Telephone line
- Pipe line
- Roads: Paved
- Roads: Gravel
- Church
- School
- None above

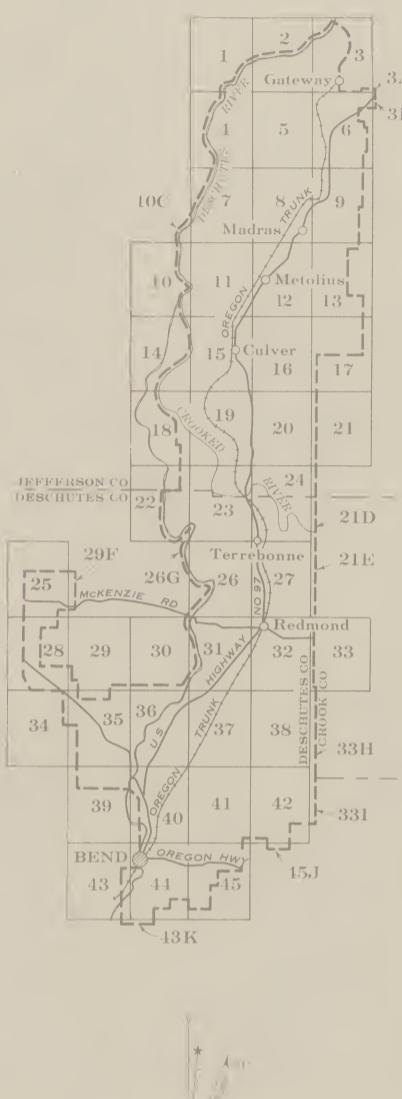
BOUNDARIES, MARKS, AND MONUMENTS

- County
- Company
- Section
- City
- CONSERVATION SURVEY DATA (in brown)
- Survey stations
- Survey marks
- Boundary

DRainage (in blue)

- Principal stream
- Intermediate streams
- Canal or ditch
- Water course
- Streams, irrigation
- Streams
- Streams

INDEX

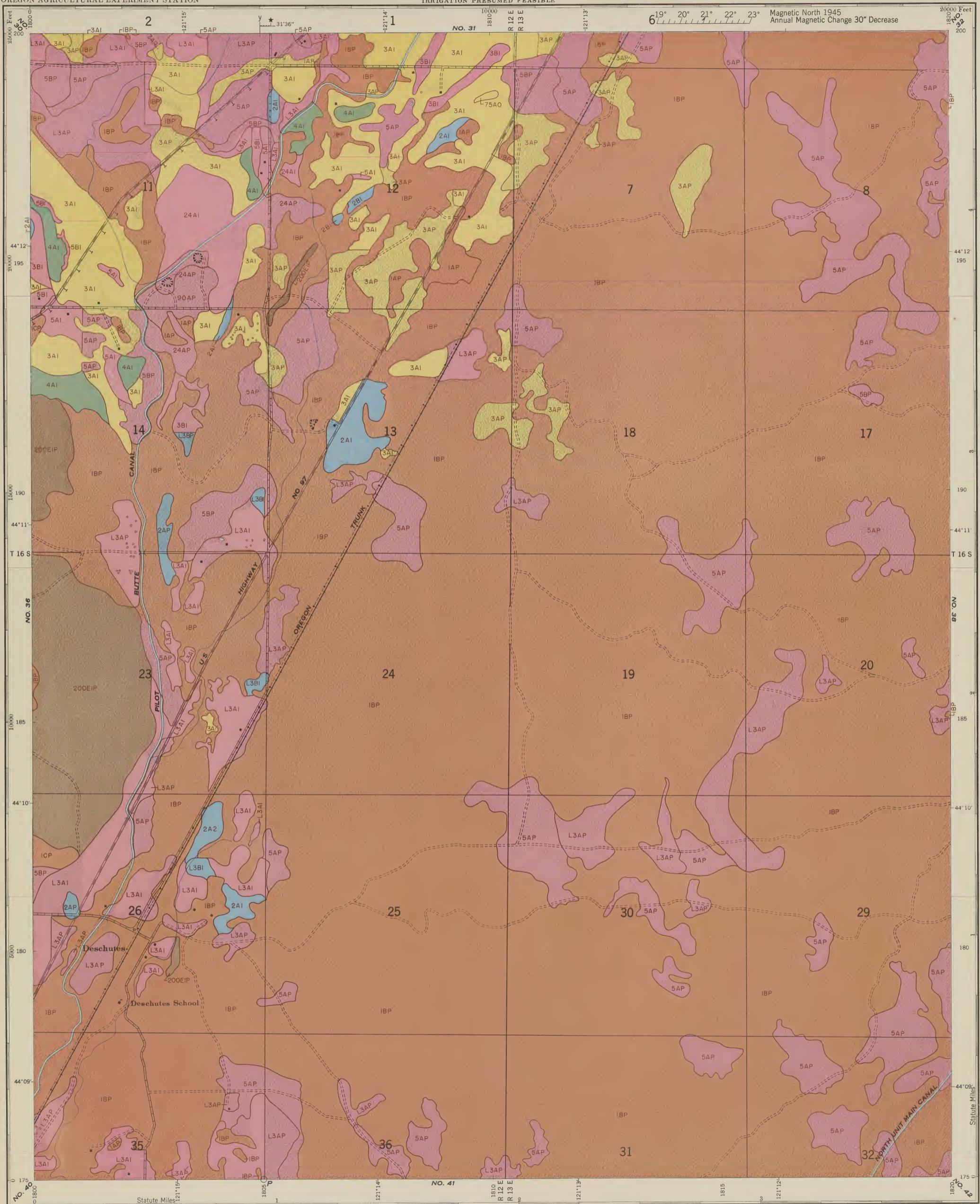


RECOMMENDED MEAN DIRECTIONAL GRID
JOURNAL MILEAGE CHART, 1937, West

LINE DIAGRAM ONLY TO OBTAIN NUMERICAL VALUES.
TO DETERMINE MAGNETIC NORTH LINE, CONNECT THE
PIVOT POINT 'P' ON THE SOUTH EDGE OF THE MAP
WITH THE ARROW AS SHOWN ON THE DEGREE
SCALE AT THE NORTH EDGE OF THE MAP.

From 12 to 15 degrees, bearing to R.R. base
and conservation survey, compiled by Soil Conservation Service from aerial photographs, March 1937.
Scale 1 mile to 1 mile, Oregon Division of Highways.
For more information, contact your state highway department or Soil Conservation Service.
Revised 1937 by Soil Conservation Service, Bureau of Land Management.

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

SUITABLE FOR OCCASIONAL CULTIVATION

NOT SUITABLE FOR CULTIVATION

**NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE**

- | | | | | | | |
|---|--|---|--|--|--|---|
| I-Nearly level, deep, permeable soils having no special limitations in use. | II-Nearly level, moderately deep, permeable soils having minor limitations in use. | III-Moderately deep soils with stone, slope or texture limitations. | IV-Shallow, droughty or moderately sloping soils limited to pasture use. | V-Sloping, very stony lands suited for range, having minor conservation needs. | VII-Steep, very stony lands suited for range, having major conservation needs. | VIII-Very steep, stony or droughty lands; essentially non-productive. |
|---|--|---|--|--|--|---|

DESCHUTES IRRIGATION PROJECT
Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

27S - (Topo) Madras (cont) loam - C series 8 percent to 12 percent
28S - (Topo) Madras (cont) loam - C series 16 to 25 percent loam R - White loam 35 percent to 75 percent fine sand by wind

SOILS

LIGHT AND COARSE TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIAL

- 2 - Deschutes sandy loam, shallow phase
- 3 - Deschutes loamy loam
- 4 - Dry sandy loam
- 5 - Deschutes loamy loam
- 6 - Deschutes sandy loamy loam
- 7 - Deschutes loamy loam, deep phase
- 8 - Deschutes loamy loam
- 9 - Deschutes loamy loam
- S43 - Erie loamy sandy loam

LIGHT AND MEDIUM TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER MODERATELY CONSOLIDATED MATERIAL

- 10 - Madras sandy loam, shallow coarse
- 10c - Deschutes sandy loam, shallow phase
- 12 - Madras sandy loam, deep phase
- 12c - Deschutes sandy loam, deep phase
- 15 - Madras stony sandy loam
- 15c - Deschutes stony loamy loam
- 90 - Deschutes stony sandy loam
- 26 - Deschutes loamy loam
- 96 - Deschutes loamy loam
- 24 - Deschutes loamy loam

EROSION

Sheet Erosion

- 1 - Less than 25 percent of the surface soil lost
- 2 - 25 percent to 25 percent of the surface soil lost
- 3 - 75 percent to 100 percent of the surface soil lost
- 4 - Up to 25 percent of the B horizon lost
- 5 - 25 percent to 50 percent of the B horizon lost

Gully Erosion

- 7 - Occasional shallow gullies
- 7c - Gullies which are removable by farm machinery
- 8 - Shallow gullies less than 10 feet apart linearly or more than a 1 per cent slope
- 8c - Uncrossable gullies less than 100 feet apart linearly or more than 5 per cent slope

Wind Erosion

- P - Up to 25 percent of surface soil removed
- R - 25 percent to 75 percent of surface soil removed
- S - 75 percent to 100 percent of surface soil removed

Wind Deposits

- F - Accumulations 0 inches to 6 inches deep; level
- H - Accumulations 6 inches to 12 inches deep; level
- K - Accumulations 6 inches to 12 inches deep; hummocky
- L - Line accumulations 0 to 12 inches deep; indicate within boundary

Miscellaneous

- W - Normal erosion
- C - No accumulation erosion
- E - Undifferentiated erosion (not directly mapped)

SOILS

LIGHT TO HEAVY TEXTURED SOIL WITH MODERATE TO HEAVY TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIALS

- 35 - Agency sandy loam
- 37 - Agency gravelly loam
- 70 - Lem loam
- 96 - Agency loam
- 63 - Agency stony loam
- 72 - Lem clay loam
- 72c - Lem clay loam, shallow phase

LIGHT TO HEAVY TEXTURED SOILS WITH HEAVY TEXTURED SUBSOILS OVER LIME HARDENED

- 39 - Malma loam
- 40 - Malma stony loam
- 68 - Malone loamy loam
- 85 - Madras clay loam

LIGHT TEXTURED SOIL WITH DEEP, LIGHT TEXTURED SUBSOIL OVER PERMEABLE MATERIALS

- 62 - Metolius sandy loam
- 60 - Metolius sandy loam
- 81 - Metolius loamy loam

MISCELLANEOUS SOILS

- 62 - Metolius sandy loam
- 92 - Metolius loamy loam
- 6X - Lairdland loamy loam

Poorly Drained, Light Textured Surface Soil with Heavy Textured Subsoil Over Basalt or Mixed Consolidated Materials

- 51 - Dalin clay loam
- 52 - Odin sandy loam

LIGHT TO HEAVY TEXTURED SOIL WITH HEAVY TEXTURED SUBSOILS MODERATELY CONSOLIDATED MATERIALS

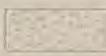
- 74 - Redmond loam
- 75 - Redmond sandy loam
- 75d - Redmond sandy loam, deep phase
- 76 - Redmond clay loam

LAND USE
Reproduced in gray

Cultivated land - annual and perennial crops such as grain, row crops, pasture, flower, and grasses.



Rangeland - land formerly cultivated but now abandoned, or annual grasses, crested wheatgrass, or brome.



Brown land - annual or perennial grasses or scrubbrush



Woodland - timber or noncommercial pine



Water body



Forested land - timber trees



SLOPE

	Dominant Percent		Dominant Percent
A	0 to 3	D	13 to 20
B	4 to 7	E	21 to 35
C	8 to 12	F	36 and over

GEOGRAPHIC SYMBOLS

WORKS AND STRUCTURES

- Roads - Hard-surfaced
- Semi-hard-surfaced
- Bit (gasoline)
- Bit (gasoline or gasoline)
- Bridge
- Culvert
- Drain
- Railroads - Single track

WORKS AND STRUCTURES

- Railroads - Abandoned
- Bridge
- Gravel pit
- Railroad yard
- Railroad yard
- Railroad yard
- Tunnel
- Business premises
- Office
- School

WORKS AND STRUCTURES

- Tank
- Power line
- Telephone line
- Gas line
- Canal
- Gravel pit
- Mineral quarry

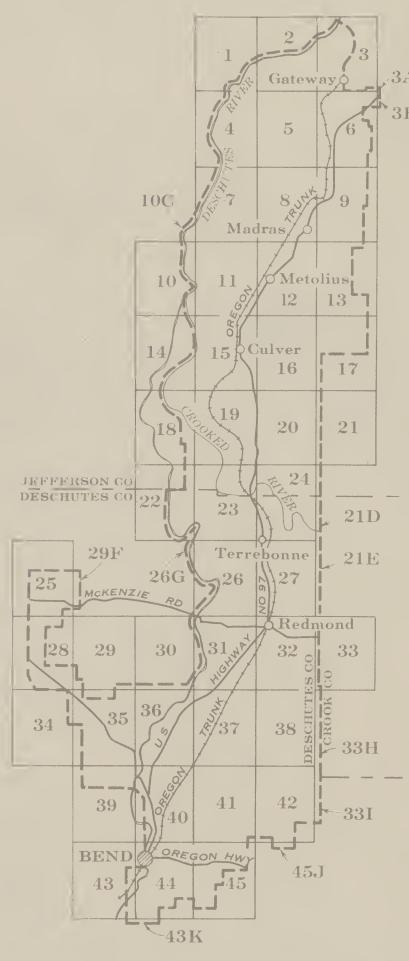
BOUNDARIES, MARKS, AND MONUMENTS

- County
- Township
- Section
- City
- Survey boundaries
- Sixty acre tract
- Rock outcrop
- Escarpment

DRAINAGE (in blue)

- Principal stream
- Minor tributary
- Ground water
- Canal or ditch
- Canal tunnel
- Water table
- Permeable aquifer
- Permeable aquifer
- Shallow
- Shallow

INDEX



Assumption: Mean Decimallity, 1945

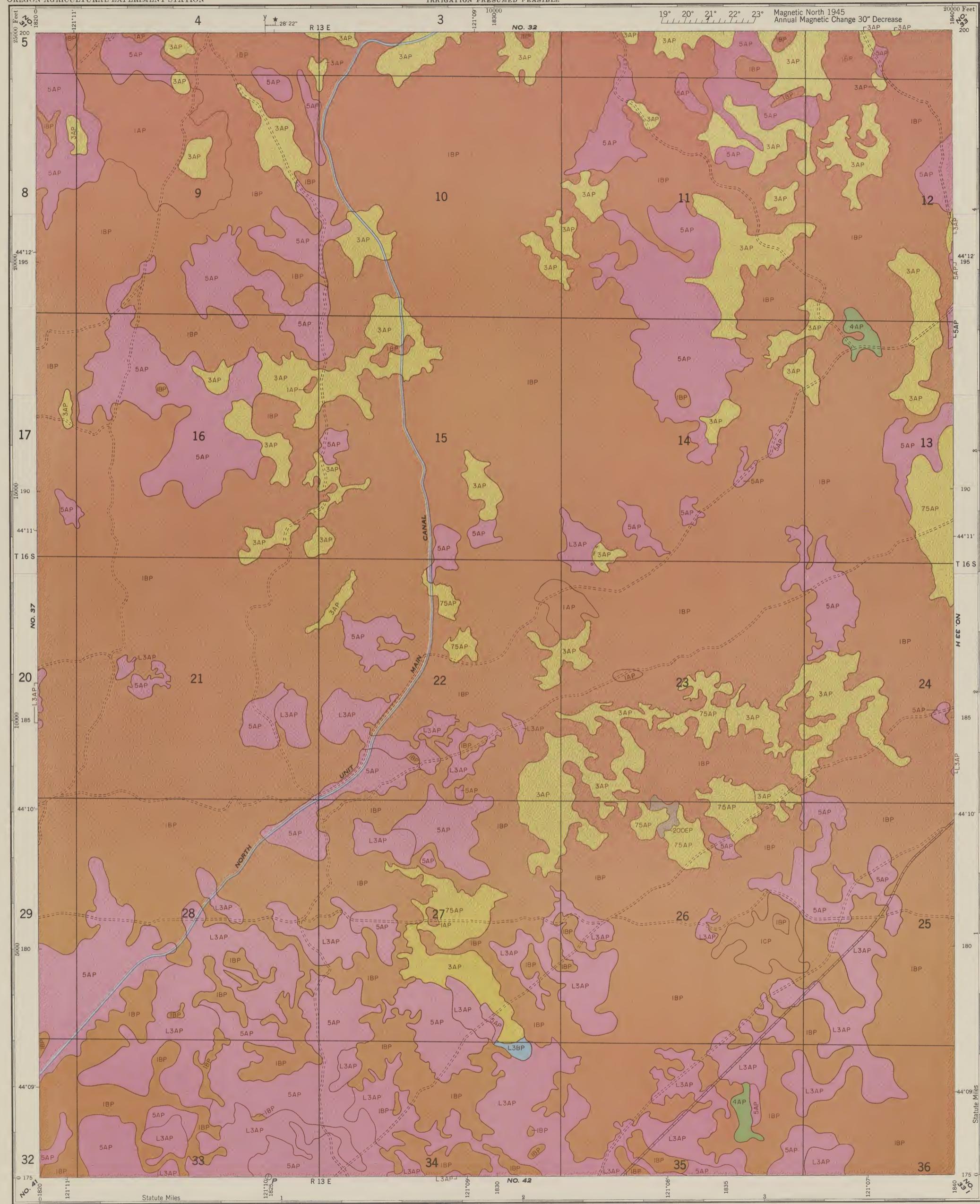
Annual Magnetic Declination 1952: 0° 00'

USE DIAGRAM ONLY TO OBTAIN NUMERICAL VALUES.
TO DETERMINE MAGNETIC NORTH LINE, CONNECT THE
PIVOT POINT "P" ON THE SOUTH EDGE OF THE MAP
WITH THE ARROW AS SHOWN ON THE DEGREE
SCALE AT THE NORTH EDGE OF THE MAP.

Data from BEND quadrangle. Reduced to base
and conservation survey compiled by Soil Conservation
Service from aerial photographs. Ambient gravimeter
method and reduced using Oregon datum (1936). Zonal
elevation coordinates with best true heights of 200' contours
selected. Contour interval indicated by contour lines.

Source: Soil Conservation Service, Soil Survey Division
U.S. Department of Agriculture, Washington, D.C.

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

SUITABLE FOR OCCASIONAL
CULTIVATION

NOT SUITABLE FOR CULTIVATION

NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE

I-Nearly level, deep, permeable soils having no special limitations in use.

II-Nearly level, moderately deep, permeable soils having minor limitations in use.

III-Moderately deep soils with stone, slope or texture limitations.

IV-Shallow, droughty or moderately sloping soils limited to pasture use.

VI-Sloping, very stony lands suited for range, having minor conservation needs.

VII-Steep, very stony lands suited for range, having major conservation needs.

VIII-Very steep, stony or droughty lands, essentially non-productive.

DESCHUTES IRRIGATION PROJECT

Scale 1:15,810

LEGEND

EXPLANATION OF SYMBOL

1- Gully type Madras sandy loam. C-Slope: 8 percent to 12 percent.
2- Sheet erosion: 25 percent to 75 percent lost. W-Wind erosion: 25 percent to 75 percent removed by wind.

SOILS

LIGHT AND COARSE TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIAL
 2 - Deschutes sandy loam, shallow phase
 3 - Deschutes silty loam
 43 - Era sandy loam
 L3 - Deschutes loamy sand
 4 - Deschutes sandy loam, deep phase
 5 - Deschutes stony loam
 19 - Deschutes stony loam
 S43 - Era stony sandy loam

LIGHT AND MEDIUM TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER MODERATELY CONSOLIDATED MATERIAL
 10 - Madras sandy loam, shallow phase
 10c - Deschutes sandy loam, shallow phase
 12 - Madras sandy loam, deep phase
 12c - Deschutes sandy loam, deep phase
 13 - Madras stony sandy loam
 13c - Deschutes stony sandy loam
 90 - Deschutes stony sandy loam
 26 - Deschutes loamy sand
 9c - Deschutes loamy sand
 24 - Deschutes loamy sand

27 - Madras sandy loam
 11c - Deschutes sandy loam
 28 - Deschutes sandy loam
 29 - Madras loam
LIGHT TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER LOOSE COARSE MATERIALS
 16 - Madras sandy loam
 47 - Deschutes loamy coarse sand
 46 - Deschutes loamy sand
 49 - Deschutes coarse sandy loam
 65 - Deschutes loamy sand over riverwash

LIGHT TO HEAVY TEXTURED SOIL WITH HEAVY TEXTURED SUBSOILS OVER MIXED MODERATELY CONSOLIDATED MATERIALS
 30 - Lamont loam
 31 - Lamont loamy sandy clay loam
 32 - Lamont stony sandy clay loam
 33 - Lamont stony loam
 34 - Lamont sandy loam, shallow phase
 84 - Lamont loam, shallow phase

LIGHT TO HEAVY TEXTURED SOIL WITH HEAVY TEXTURED SUBSOILS OVER LIME HARDPAN
 39 - Madras loam
 40 - Madras sandy loam
 68 - Metolius stony loam
 85 - Metolius clay loam

LIGHT TEXTURED SOIL WITH DEEP, LIGHT TEXTURED SUBSOIL OVER PERMEABLE MATERIALS
 42 - Metolius sandy loam
 60 - Metolius sandy loam
 61 - Metolius fine sandy loam

62 - Metolius sandy loam
 63 - Metolius loamy sand
 6X - Lajidea sandy loam

Poorly Drained, Light Textured Surface Soil with Heavy Textured Subsoil Over Basalt or Mixed Consolidated Materials
 51 - Odell dry loam
 52 - Odell loamy loam

LIGHT TO HEAVY TEXTURED SOIL WITH HEAVY TEXTURED SUBSOILS, MODERATELY CONSOLIDATED MATERIALS
 74 - Redmond loam
 75 - Redmond sandy loam
 75d - Redmond-sandy loam, deep phase
 76 - Redmond clay loam

MISCELLANEOUS SOILS
 100 - Rough broken land
 200 - Rough stony land
 RW - Riverwash
 V - Volcanic ash
 1 - Scabland

EROSION

SHEET EROSION

- 1 - Less than 25 percent of the surface soil lost
- 2 - 25 percent to 75 percent of the surface soil lost
- 3 - 75 percent to 100 percent of the surface soil lost
or up to 25 percent of the B horizon lost
- 4 - 25 percent to 50 percent of the B horizon lost

GULLY EROSION

- 7 - Occasional shallow gullies
- 7C - Occasional gullies uncrossable by farm machinery
- 8 - Shallow gullies less than 100 feet apart laterally or more than 3 per acre
- 8C - Uncrossable gullies less than 100 feet apart laterally or more than 3 per acre

WIND EROSION

- P - Up to 25 percent of surface soil removed
- R - 25 percent to 75 percent of surface soil removed
- S - 75 percent to 100 percent of surface soil removed

WIND DEPOSITS

- F - Accumulations: 6 inches to 6 inches deep, level
- H - Accumulations: 6 inches to 12 inches deep, level
- K - Accumulations: 6 inches to 12 inches deep, hummocky
- — — Line accumulations too narrow to indicate within boundaries

MISCELLANEOUS

- W - Normal erosion
- O - No accelerated erosion
- U - Undifferentiated erosion (Beneath crop residue)

LAND USE

Reproduced in gray

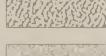
Cultivated land: annual and perennial crops such as grain, row crops, alfalfa, clover and grasses.



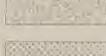
Range land: land formerly cultivated but now abandoned; annual winter rye, wheat, prairie, or brush.



Rangeland: above or permanent grasses or sagebrush



Woodland: juniper, Ponderosa pine



TIdle land



Farmfield and vineyard



SLOPE

	Dominant Percent	Dominant Percent	
A	0 to 3	D	13 to 20
B	4 to 7	E	21 to 35
C	8 to 12	F	36 and over

GEOGRAPHIC SYMBOLS

WORKS AND STRUCTURES

Roads: Hard-surfaced	
Semi-hard-surfaced	
Dirt (good motor)	
Dirt (poor motor or private)	
Bridge	
Culvert	
Flood	
Railroads - Single track	

WORKS AND STRUCTURES

Railroads - Abandoned	
Bridge	
Grade crossing	
Railroad under	
Railroad over	
Tunnel	
Buildings in general	
Church	
School	

WORKS AND STRUCTURES

Tank	
Power line	
Telephone line	
Pipe line	
Canal	
Dams	
Oil well	
Mine quarry	

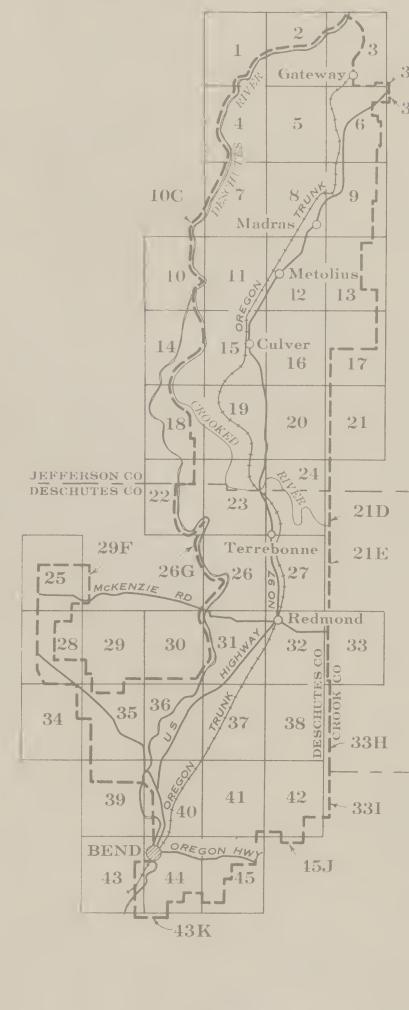
BOUNDARIES, MARKS, AND MONUMENTS

County	
Township	
Section	
City	
Survey Boundary	
Stony Creek 70' R	
Rock cutout	
Equipment	

DRAINAGE (in blue)

Perennial stream	
Intermittent stream	
Ground water	
Canal (irrigation)	
Water tank	
Wells	
Rock cutout	
Springs	
Marsh	

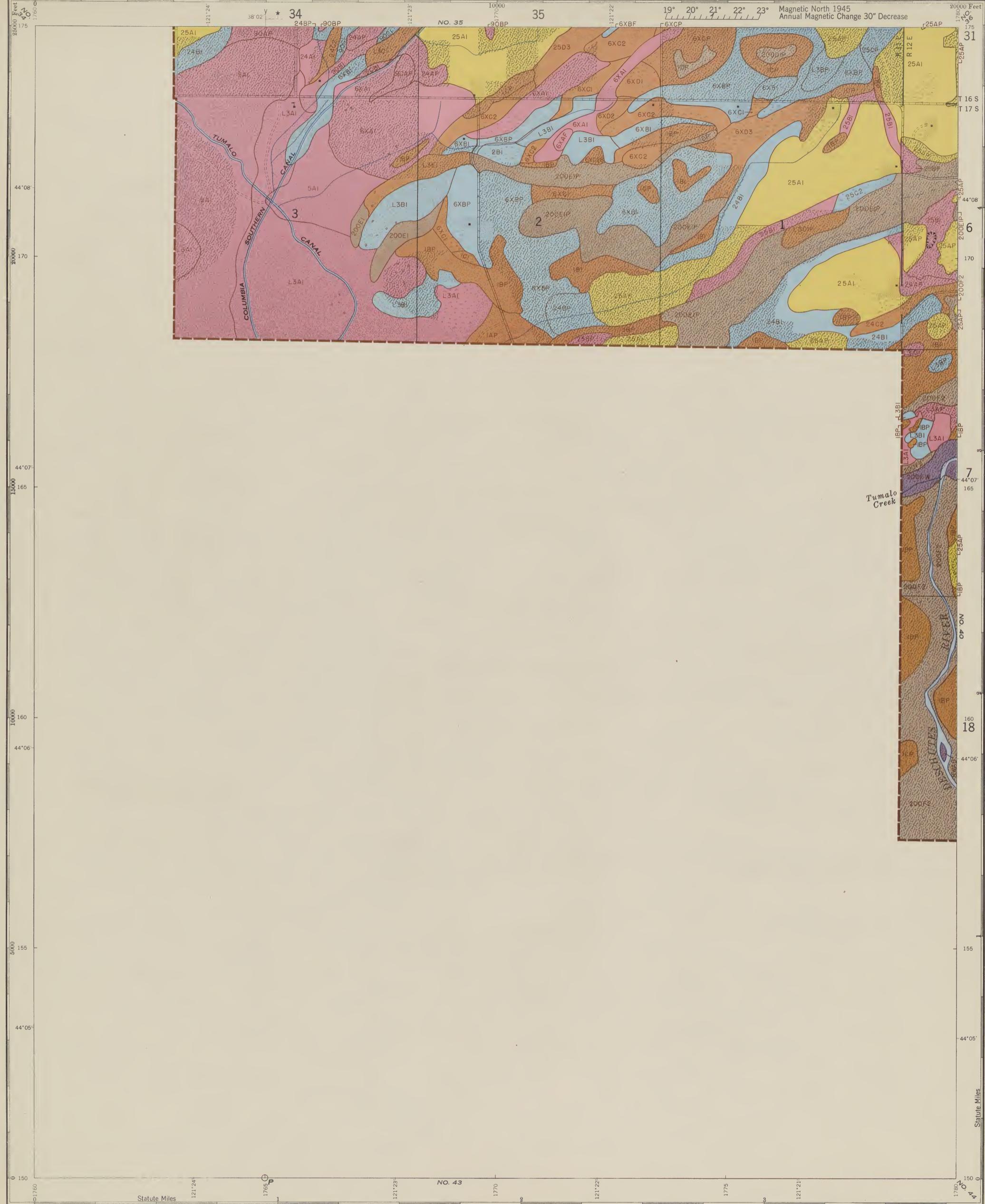
INDEX



Use diagram only to obtain numerical values. To determine magnetic north line, connect the pivot point "P" on the south edge of the map with the arrow as shown on the degree scale at the north edge of the map.

Base from U.S. Geological Survey 1:250,000 scale topographic maps. Reproduced by the Soil Conservation Service from aerial photographs. Lambert projection. 1960 (last grid based upon 1950 system). Data from 1960. Grid numbers with last three digits omitted. Vertical column for elevation in marginal scale.

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

SUITABLE FOR OCCASIONAL
CULTIVATION

NOT SUITABLE FOR CULTIVATION

NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE

I-Nearly level, deep, permeable soils having no special limitations in use.

II-Nearly level, moderately deep, permeable soils having minor limitations in use.

III-Moderately deep soils with stone, slope or texture limitations.

IV-Shallow, droughty or moderately sloping soils limited to pasture use.

V-Sloping, very stony lands suited for range, having minor conservation needs.

VI-Steep, very stony lands suited for range, having major conservation needs.

VII-Very steep, stony or droughty lands, essentially non-cultivable.

DESCHUTES IRRIGATION PROJECT

Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

27 Soil type, Madras sandy loam, C- Slope, 8 percent to 12 percent.
2- Sheet erosion, 25 percent to 75 percent lost. R- Wind erosion, 25 percent to 75 percent removed by wind.

SOILS

LIGHT AND COARSE TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIAL

- 27- Madras sandy loam.
- 11c- Deschutes sandy loam.
- 25- Deschutes sandy loam.
- 28- Madras loam.

LIGHT AND MEDIUM TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER MODERATELY CONSOLIDATED MATERIAL

- 10- Madras sandy loam, shallow phase.
- 10c- Deschutes sandy loam, shallow phase.
- 12- Madras sandy loam, deep phase.
- 12c- Deschutes sandy loam, deep phase.
- 13- Madras stony sandy loam.
- 13c- Deschutes stony sandy loam.
- 90- Deschutes stony sandy loam.
- 26- Deschutes loamy sand.
- 9c- Deschutes loamy sand.
- 24- Deschutes loamy sand.

EROSION

SHEET EROSION

- 1- Less than 25 percent of the surface soil lost.
- 2- 25 percent to 75 percent of the surface soil lost.
- 3- 75 percent to 100 percent of the surface soil lost or up to 25 percent of the B horizon lost.
- 4- 25 percent to 50 percent of the B horizon lost.

GULLY EROSION

- 7- Occasional shallow gullies.
- 7- Occasional gullies uncrossable by farm machinery.
- 8- Shallow gullies less than 100 feet apart laterally or more than 3 per acre.
- 8- Uncrossable gullies less than 100 feet apart laterally or more than 3 per acre.

WIND EROSION

- P- Up to 25 percent of surface soil removed.
- R- 25 percent to 75 percent of surface soil removed.
- S- 75 percent to 100 percent of surface soil removed.

WIND DEPOSITS

- F- Accumulations 0 inches to 6 inches deep, level.
- H- Accumulations 6 inches to 12 inches deep, level.
- K- Accumulations 6 inches to 12 inches deep, hummocky.
- — — Line accumulations too narrow to include within boundaries.

MISCELLANEOUS

- W- Normal erosion.
- O- No accelerated erosion.
- O- Undifferentiated erosion (farmsteads, urban areas).

LIGHT TO HEAVY TEXTURED SOIL WITH MODERATELY HEAVY TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIALS

- 35- Agency sandy loam.
- 37- Agency gravelly loam.
- 70- Gem loam.
- 36- Agency loam.
- 63- Agency stony loam.
- 71- Gem clay loam.
- 73- Gem clay loam, shallow phase.

LIGHT TO HEAVY TEXTURED SOILS WITH HEAVY TEXTURED SUBSOILS OVER LIME HARDPAN

- 39- Madras loam.
- 40- Madras sandy loam.
- 68- Madras stony loam.
- 85- Madras clay loam.

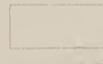
LIGHT TEXTURED SOIL WITH DEEP, LIGHT TEXTURED SUBSOIL OVER PERMEABLE MATERIALS

- 42- Metolius sandy loam.
- 60- Metolius sandy loam.
- 61- Metolius fine sandy loam.

LAND USE

Reproduced in gray

Cultivated land, annual and perennial crops such as grain, row crops, alfalfa, clover and grasses



Range land, Land formerly cultivated but now abandoned in annual grasses, crested wheat grasses, or browse



Range land, Annual or perennial grasses or sagebrush



Woodland, Juniper or Ponderosa pine



Idle land



Farmstead and urban area



SLOPE

	DOMINANT PERCENT	DOMINANT PERCENT
A	0 to 3	D 13 to 20
B	4 to 7	E 21 to 35
C	8 to 12	F 36 and over

GEOGRAPHIC SYMBOLS

WORKS AND STRUCTURES

- Roads- Hard-surfaced
- Roads- Semihard- surfaced
- Dirt (good motor)
- Dirt (poor motor or private)
- Bridge
- Culvert
- Ford
- Railroads Single track

WORKS AND STRUCTURES

- Railroads - Abandoned
- Bridge
- Grade crossing
- Railroad under
- Railroad over
- Tunnel
- Buildings in general
- Church
- School

WORKS AND STRUCTURES

- Tanks
- Power line
- Telephone line
- Pipe line
- Cemeteries
- Dams
- Gravel pit
- Mine quarry

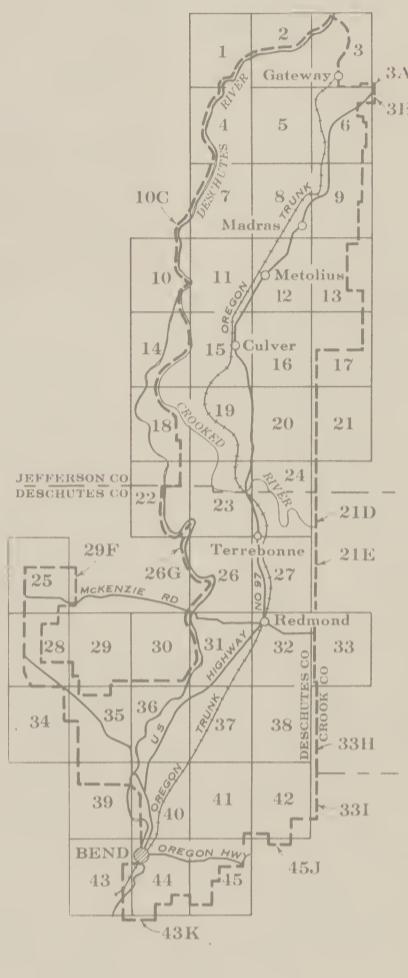
BOUNDARIES, MARKS, AND MONUMENTS

- County
- Township
- Section
- City
- Survey boundary
- Stony areas
- Rock outcrops
- Escarpment

DRAINAGE (in blue)

- Perennial streams
- Intermittent streams
- Canals or ditches
- Canal tunnel
- Water tanks
- Ponds, reservoirs
- Springs
- Sinks
- Marsh

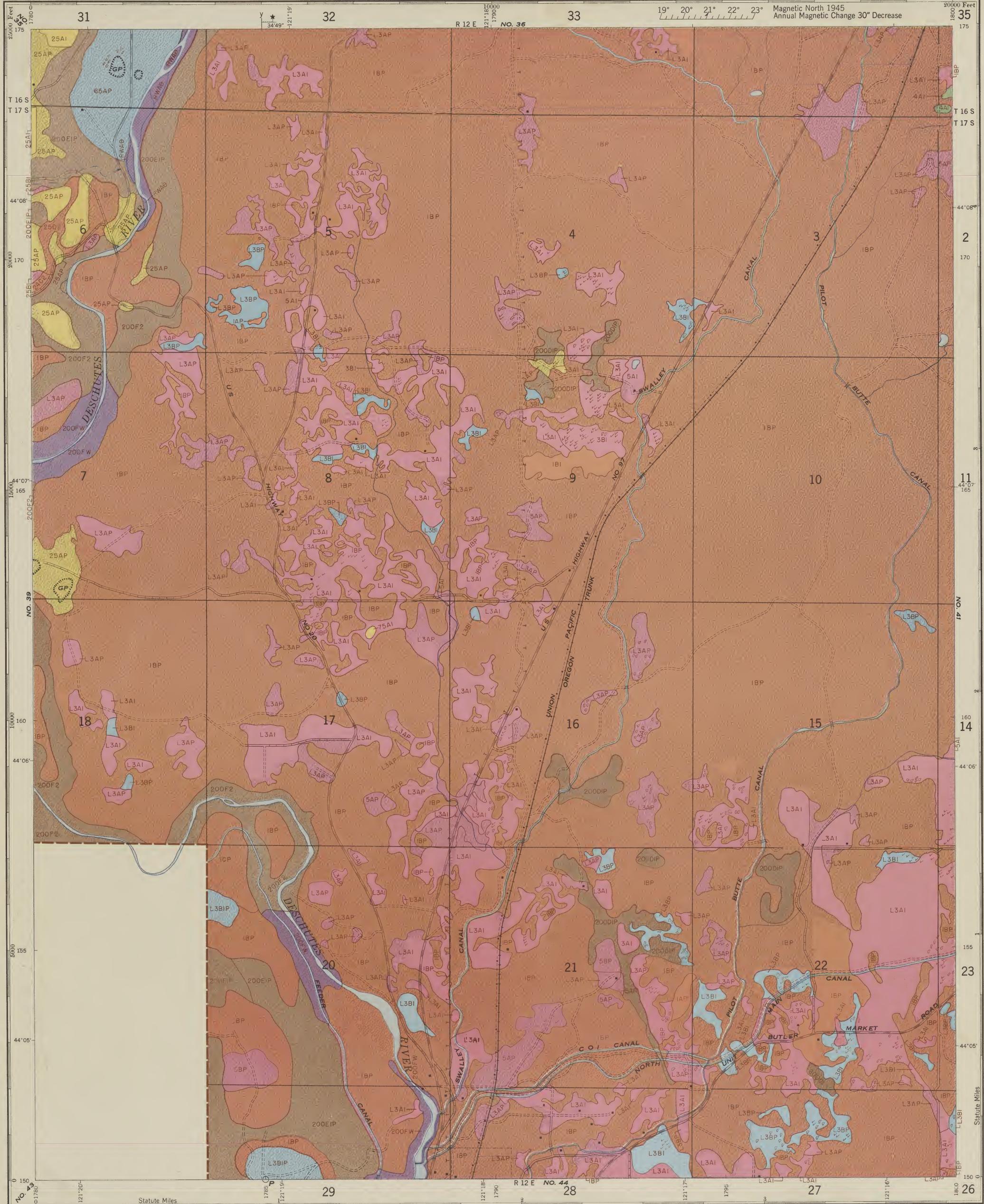
INDEX



USE DIAGRAM ONLY TO OBTAIN NUMERICAL VALUES.
TO DETERMINE MAGNETIC NORTH LINE, CONNECT THE PIVOT POINT 'P' ON THE SOUTH EDGE OF THE MAP WITH THE ARROW AS SHOWN ON THE DEGREE SCALE AT THE NORTH EDGE OF THE MAP.

Base from U.S.G.S. quadrangles. Revisions to base and conservation surveys compiled by Soil Conservation Service from aerial photographs. Lambert projection. 500' foot grid based upon Oregon system (North Zone) of plane coordinates with last three digits of grid numbers omitted. Polyconic projection indicated by marginal ticks.

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

SUITABLE FOR OCCASIONAL CULTIVATION

NOT SUITABLE FOR CULTIVATION

**NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE**

- | | | | | | | |
|---|--|---|--|--|---|--|
| I-Nearly level, deep, permeable soils having no special limitations in use. | II-Nearly level, moderately deep, permeable soils having minor limitations in use. | III-Moderately deep soils with stone, slope or texture limitations. | IV-Shallow, droughty or moderately sloping soils limited to pasture use. | V-Sloping, very stony lands suited for range, having minor conservation needs. | VI-Steep, very stony lands suited for range, having major conservation needs. | VII-Very steep, stony or droughty lands; essentially non-productive. |
|---|--|---|--|--|---|--|

DESCHUTES IRRIGATION PROJECT

Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

2702R
 27-Soil type Madras sandy loam. C-Slope, 8 percent to 12 percent.
 2-Sheet erosion, 25 percent to 75 percent lost. R-Wind erosion, 25 percent to 75 percent removed by wind.

SOILS

LIGHT AND COARSE TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIAL

- 2 - Deschutes sandy loam, shallow phase
- 3 - Deschutes sandy loam
- 43 - Era sandy loam
- L3 - Deschutes loamy sand
- 4 - Deschutes loamy sandy loam
- 5 - Deschutes loamy sandy loam
- 19 - Deschutes stony loam
- S43 - Era stony sandy loam

LIGHT AND MEDIUM TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER MODERATELY CONSOLIDATED MATERIAL

- 10 - Madras sandy loam, shallow phase
- 10c - Deschutes sandy loam, shallow phase
- 12 - Madras sandy loam, deep phase
- 12c - Deschutes loamy loam, deep phase
- 13 - Madras stony sandy loam
- 13c - Deschutes stony sandy loam
- 90 - Deschutes stony sandy loam
- 26 - Deschutes loamy loam
- 9c - Deschutes loamy sand
- 74 - Deschutes loamy sand

LIGHT TO HEAVY TEXTURED SOIL WITH MODERATELY TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIALS

- 27 - Madras sandy loam
- 11c - Deschutes sandy loam
- 25 - Deschutes loamy loam
- 28 - Madras loam
- 16 - Metolius loamy loam
- 47 - Deschutes loamy loamy sand
- 46 - Deschutes loamy loam
- 49 - Deschutes coarse sandy loam
- 65 - Deschutes loamy loam overwash

LIGHT TO HEAVY TEXTURED SOIL WITH HEAVY TEXTURED SUBSOILS OVER MIXED MODERATELY CONSOLIDATED MATERIALS

- 30 - Lamont loam
- 31 - Lamont sandy clay loam
- 32 - Lamont loamy sandy clay loam
- 33 - Lamont stony loam
- 34 - Lamont stony clay loam, shallow phase
- 84 - Lamont loam, shallow phase

LIGHT TO HEAVY TEXTURED SOIL WITH MODERATELY HEAVY TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIALS

- 35 - Agency sandy loam
- 37 - Agency gravelly loam
- 70 - Gem loam
- 36 - Agency loamy loam
- 63 - Agency stony loam
- 71 - Gem clay loam
- 75 - Gem clay loam, shallow phase

LIGHT TO HEAVY TEXTURED SOILS WITH HEAVY TEXTURED SUBSOILS OVER LIME HARDPAN

- 39 - Madras loam
- 40 - Metolius stony loam
- 68 - Metolius loamy loam
- 95 - Metolius clay loam

LIGHT TEXTURED SOIL WITH DEEP, LIGHT TEXTURED SUBSOIL OVER PERMEABLE MATERIALS

- 42 - Metolius loamy loam
- 60 - Metolius sandy loam
- 60 - Metolius fine sandy loam

POORLY DRAINED LIGHT TEXTURED SURFACE SOIL WITH HEAVY TEXTURED SUBSOIL OVER BASALT OR MIXED CONSOLIDATED MATERIALS

- 51 - Odell dry loam
- 52 - Odell sandy loam

LIGHT TO HEAVY TEXTURED SOIL WITH HEAVY TEXTURED SUBSOILS MODERATELY CONSOLIDATED MATERIALS

- 74 - Redmond loam
- 75 - Redmond stony loam
- 75d - Redmond sandy loam, deep phase
- 76 - Redmond clay loam

MISCELLANEOUS SOILS

- 100 - Rough broken land
- 200 - Rough stony land
- RW - Riverwash
- 91 - Volcanic ash
- I - Scrubland

EROSION

SHEET EROSION

- 1 - Less than 25 percent of the surface soil lost
- 2 - 25 percent to 75 percent of the surface soil lost
- 3 - 75 percent to 100 percent of the surface soil lost or up to 25 percent of the B horizon lost
- 4 - 25 percent to 50 percent of the B horizon lost

GULLY EROSION

- 7 - Occasional shallow gullies
- 7c - Occasional gullies uncrossable by farm machinery
- 8 - Shallow gullies less than 100 feet apart laterally or more than 3 per acre
- 8c - Uncrossable gullies less than 100 feet apart laterally or more than 3 per acre

WIND EROSION

- P - Up to 25 percent of surface soil removed
- R - 25 percent to 75 percent of surface soil removed
- S - 75 percent to 100 percent of surface soil removed

WIND DEPOSITS

- F - Accumulations 0 inches to 6 inches deep, level
- H - Accumulations 6 inches to 12 inches deep, level
- K - Accumulations 6 inches to 12 inches deep, hummocky
- — — Line accumulations too narrow to include within boundaries

MISCELLANEOUS

- W - Normal erosion
- O - No accelerated erosion
- U - Undifferentiated erosion (farmsteads, urban areas)

LAND USE

Reproduced in gray

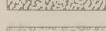
Cultivated land, annual and perennial crops such as grain, row crops, alfalfa, clover and grasses



Rangeland, land formerly cultivated but now abandoned to annual grasses, crested wheat grasses, or browse



Woodland, timber or Ponderosa pine



Idle land



Farmstead and urban area



SLOPE

	DOMINANT PERCENT	DOMINANT PERCENT	
A	0 to 3	D	13 to 20
B	4 to 7	E	21 to 35
C	8 to 12	F	36 and over

GEOGRAPHIC SYMBOLS

WORKS AND STRUCTURES

- Roads- Hard-surfaced
- Semihard- surfaced
- Dirt (good motor)
- Dirt (poor motor or private)
- Bridge
- Culvert
- Ford
- Railroads - Single track

WORKS AND STRUCTURES

- Railroads - Abandoned
- Bridge
- Grade crossing
- Railroad under
- Railroad over
- Tunnel
- Buildings in general
- Church
- School

WORKS AND STRUCTURES

- Tanks
- Power line
- Telephone line
- Pipe line
- Cemeteries
- Dams
- Gravel pit
- Mine, quarry

BOUNDARIES, MARKS, AND MONUMENTS

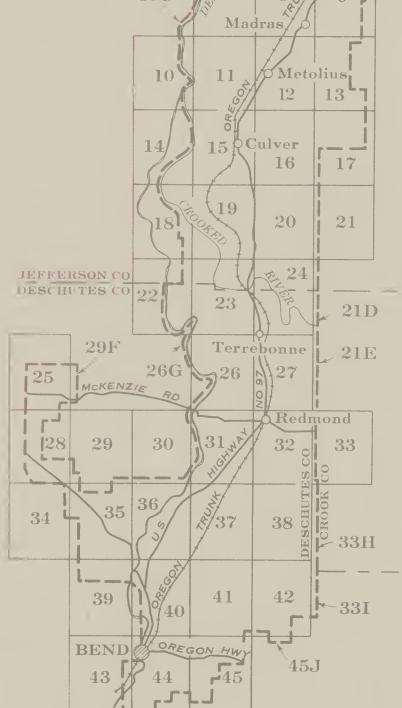
- County
- Township
- Section
- City
- CONSERVATION SURVEY DATA (in brown)
- Survey boundary
- Stony areas
- Rock outcrops
- Escarpment

DRAINAGE (in blue)

- Perennial streams
- Intermittent streams
- Canals & ditches
- Canal tunnel
- Water tanks
- Ponds, reservoirs
- Springs
- Marsh
- Sinks

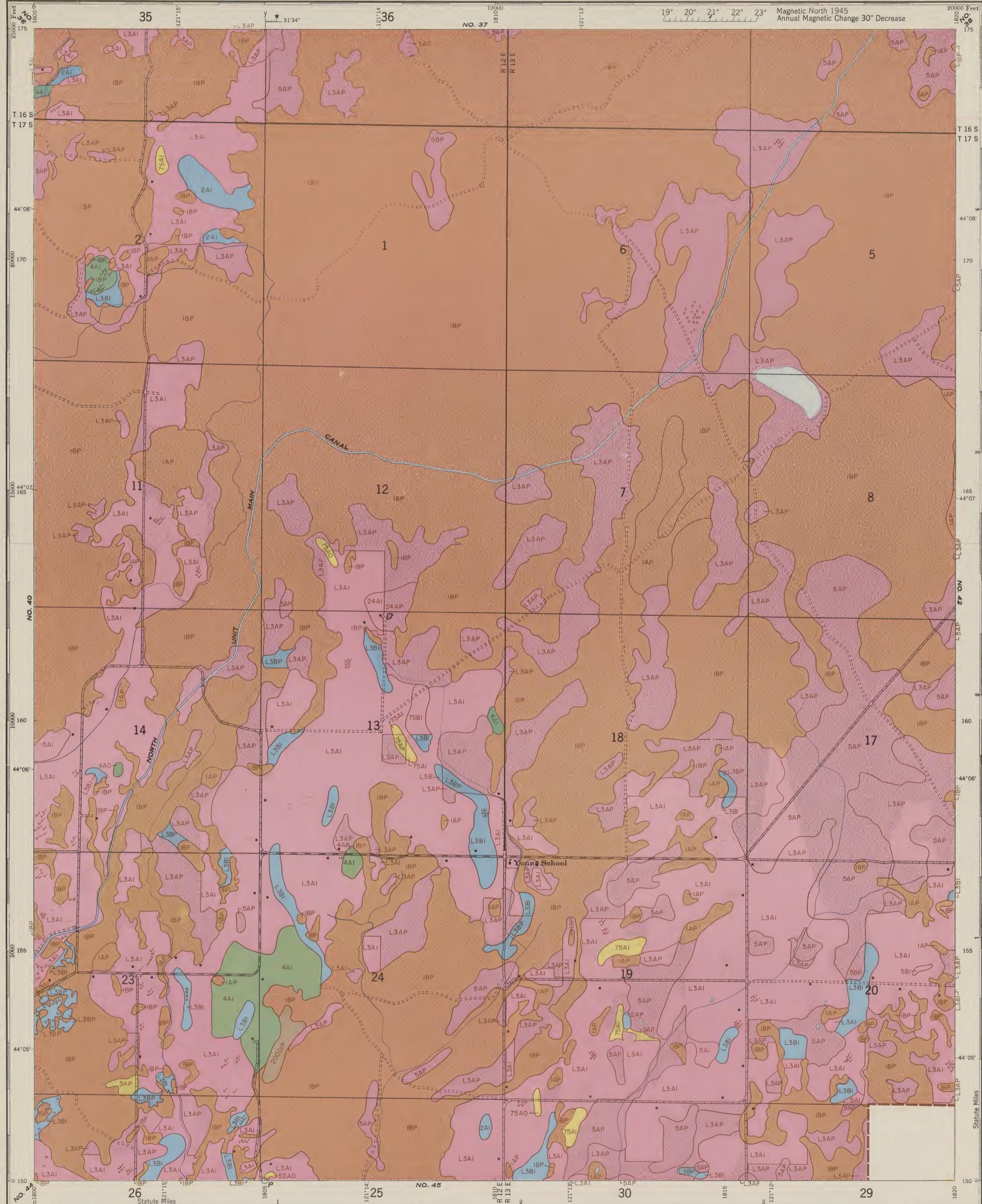
USE DIAGRAM ONLY TO OBTAIN NUMERICAL VALUES TO DETERMINE MAGNETIC NORTH LINE. CONNECT THE PIVOT POINT "P" ON THE SOUTH EDGE OF THE MAP WITH THE ARROW AS SHOWN ON THE DEGREE SCALE AT THE NORTH EDGE OF THE MAP.

Approximate Mean Declination, 1945
 Azimuth Magnetic Change 130° West
 Base from U.S.G.S. quadrangles. Revisions to base and conservation survey compiled by Soil Conservation Service from aerial photographs. Lambert projection. 5000 foot grid based upon Oregon system (North Zone) of plane coordinates with last three digits of grid numbers omitted. Polyconic projection indicated by marginal ticks.



Approximate Mean Declination, 1945
 Azimuth Magnetic Change 130° West

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

SUITABLE FOR OCCASIONAL
CULTIVATION

NOT SUITABLE FOR CULTIVATION

NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE

DESCHUTES IRRIGATION PROJECT

Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

27C2R
27-Soil type, Madras sandy loam. C. Slope, 8 percent to 12 percent.
Sheet erosion, 25 percent to 75 percent lost. R-Wind erosion, 25 percent to 75 percent removed by wind.

SOILS

LIGHT AND COARSE TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIAL

- 2- Deschutes sandy loam, shallow phase.
- 3- Deschutes sandy loam.
- 43- Era sandy loam.
- L3- Deschutes loamy sand.
- 4- Deschutes sandy loam, deep phase.
- 5- Deschutes stony loamy loam.
- 19- Deschutes stony loam.
- S43- Era stony sandy loam.

LIGHT AND MEDIUM TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER MODERATELY CONSOLIDATED MATERIAL

- 10- Madras sandy loam, shallow phase.
- 10c- Deschutes sandy loam, shallow phase.
- 12- Madras sandy loam, deep phase.
- 13- Deschutes sandy loam, deep phase.
- 13- Madras stony loam.
- 13c- Deschutes stony sandy loam.
- 90- Deschutes stony sandy loam.
- 26- Deschutes loamy sand.
- 9g- Deschutes loamy sand.
- 24- Deschutes loamy sand.

EROSION

SHEET EROSION

- 1- Less than 25 percent of the surface soil lost.
- 2- 25 percent to 75 percent of the surface soil lost.
- 3- 75 percent to 100 percent of the surface soil lost or up to 25 percent of the B horizon lost.
- 4- 25 percent to 50 percent of the B horizon lost.

GULLY EROSION

- 7- Occasional shallow gullies.
- 7- Occasional gullies uncrossable by farm machinery.
- 8- Shallow gullies less than 100 feet apart laterally or more than 3 per acre.
- 8- Uncrossable gullies less than 100 feet apart laterally or more than 3 per acre.

WIND EROSION

- P- Up to 25 percent of surface soil removed.
- R- 25 percent to 75 percent of surface soil removed.
- S- 75 percent to 100 percent of surface soil removed.

WIND DEPOSITS

- F- Accumulations 0 inches to 6 inches deep, level.
- H- Accumulations 6 inches to 12 inches deep, level.
- K- Accumulations 6 inches to 12 inches deep, hummocky.
- Line accumulations too narrow to include within boundaries.

MISCELLANEOUS

- W- Normal erosion.
- O- No accelerated erosion.
- O- Undifferentiated erosion (farmfields, urban areas).

EXPLANATION OF SYMBOL

LIGHT TO HEAVY TEXTURED SOIL WITH MODERATELY HEAVY TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIALS

- 35- Agency sandy loam.
- 37- Agency gravelly loam.
- 70- Gem loam.
- 36- Agency loam.
- 83- Agency stony loam.
- 71- Gem clay loam.
- 73- Gem clay loam, shallow phase.

LIGHT TO HEAVY TEXTURED SOILS WITH HEAVY TEXTURED SUBSOILS OVER LIME HARDPAN.

- 39- Madras loam.
- 40- Madras stony loam.
- 68- Madras stony loam.
- 85- Madras clay loam.

LIGHT TEXTURED SOIL WITH DEEP, LIGHT TEXTURED SUBSOIL OVER PERMEABLE MATERIALS.

- 42- Metolius sandy loam.
- 60- Metolius sandy loam.
- 61- Metolius fine sandy loam.

POORLY DRAINED, LIGHT TEXTURED SURFACE SOIL WITH HEAVY TEXTURED SUBSOIL OVER BASALT OR MIXED INCONSOLIDATED MATERIALS

- 51- Ochoco clay loam.
- 52- Ochoco sandy loam.

LIGHT TO HEAVY TEXTURED SOIL WITH HEAVY TEXTURED SUBSOILS MODERATELY CONSOLIDATED MATERIALS

- 74- Redmond loam.
- 75- Redmond sandy loam.
- 75d- Redmond sandy loam, deep phase.
- 76- Redmond clay loam.

MISCELLANEOUS SOILS

- 100- Rough broken land.
- 200- Rough stony land.
- RW- Riverwash.
- 91- Volcanic ash.
- 1- Scabland.

LAND USE

Reproduced in gray

Cultivated land, annual and perennial crops such as grain, row crops, alfalfa, clover and grasses.



Rangeland: Land formerly cultivated but now abandoned or annual grasses, crested wheat grasses, or browse.



Rangeland: Annual or perennial grasses, or sagebrush.



Woodland: Juniper or ponderosa pine.



Idle land.



Farmfield and orchard.



SLOPE

	Dominant Percent		Dominant Percent
A	0 to 3	D	13 to 20
B	4 to 7	E	21 to 35
C	8 to 12	F	36 and over

GEOGRAPHIC SYMBOLS

WORKS AND STRUCTURES

- Roads: Hard-surfaced
- Semihard- surfaced
- Dirt (good motor)
- Dirt (poor motor or private)
- Bridge
- Culvert
- Ford
- Railroads- Single track

WORKS AND STRUCTURES

- Railroads - Abandoned
- Bridge
- Grade crossing
- Railroad under
- Railroad over
- Tunnel
- Buildings in general
- Church
- School

WORKS AND STRUCTURES

- Tanks
- Power line
- Telephone line
- Pipe line
- Cemetries
- Dams
- Gravel pit
- Mine quarry

BOUNDARIES, MARKS, AND MONUMENTS

- County
- Township
- Section
- City
- Survey boundary
- Stony areas
- Rock outcrops
- Escarpment

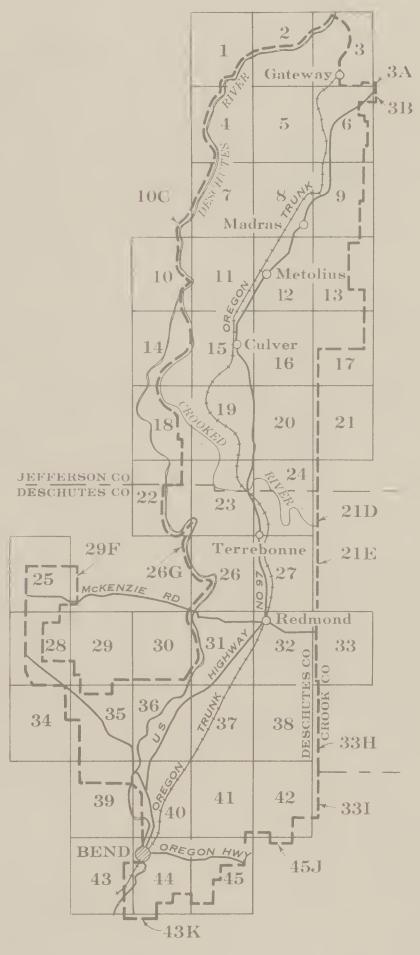
DRAINAGE (in blue)

- Perennial streams
- Intermittent streams
- Canal or ditch
- Canal tunnel
- Water tanks
- Ponds, reservoirs
- Spring
- Sinks
- Marsh

USE DIAGRAM ONLY TO OBTAIN NUMERICAL VALUES. TO DETERMINE MAGNETIC NORTH LINE, CONNECT THE PIVOT POINT "P" ON THE SOUTH EDGE OF THE MAP WITH THE ARROW AS SHOWN ON THE DEGREE SCALE AT THE NORTH EDGE OF THE MAP.

Base from U.S.G.S. quadrangles, Revisions 1 base and conservation survey compiled by Soil Conservation Service from aerial photographs. Lambert projection. 5000 foot grid based upon Oregon system (Ninth Meridian). Plane coordinates with last three digits of grid position omitted. Polyconic projection indicated by marginal ticks.

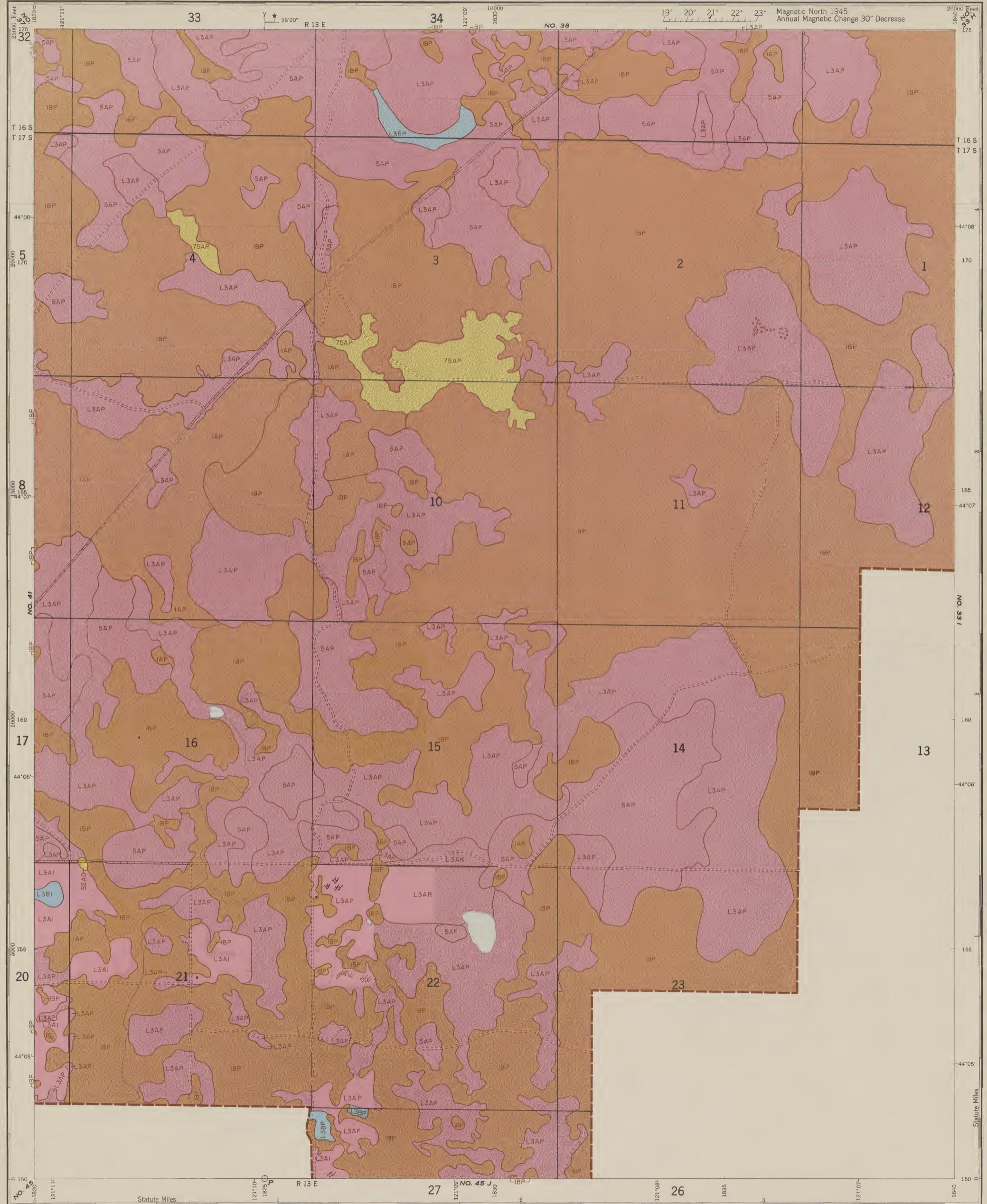
INDEX



OREGON

CLASSES OF LAND ACCORDING TO CAPABILITY

IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

SUITABLE FOR OCCASIONAL CULTIVATION

NOT SUITABLE FOR CULTIVATION

**NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE**

I-Nearly level, deep, permeable soils having no special limitations in use.	II-Nearly level, moderately deep, permeable soils having minor limitations in use.	III-Moderately deep soils with stone, slope or texture limitations.	IV-Shallow, droughty or moderately sloping soils limited to pasture use.	V-Sloping, very stony lands suited for range, having minor conservation needs.	VI-Sleep, very stony lands suited for range, having major conservation needs.	VII-Very steep, stony or droughty lands; essentially non-productive.
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DESCHUTES IRRIGATION PROJECT
Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

27-Silt loam, Madras sandy loam, C: Slope, 8 percent to 12 percent.
28-Sheet erosion, 25 percent to 75 percent lost. R: Wind erosion, 25 percent to 75 percent removed by wind.

SOILS

LIGHT AND COARSE TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIAL

- 2 - Deschutes sandy loam, shallow phase
- 3 - Deschutes sandy loam
- 43 - Era sandy loam
- 4 - Deschutes loamy sand
- 5 - Deschutes stony sandy loam
- 19 - Deschutes stony loam
- S43 - Era stony sandy loam

LIGHT AND MEDIUM TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER MODERATELY CONSOLIDATED MATERIAL

- 10 - Madras sandy loam, shallow phase
- 10c - Deschutes sandy loam, shallow phase
- 12 - Madras sandy loam, deep phase
- 12c - Deschutes sandy loam, deep phase
- 13 - Madras stony sandy loam
- 13c - Deschutes stony sandy loam
- 90 - Deschutes stony sandy loam
- 26 - Deschutes loamy sand
- 9c - Deschutes loamy sand
- 24 - Deschutes loamy sand

EROSION

SHEET EROSION

- 1 - Less than 25 percent of the surface soil lost
- 2 - 25 percent to 75 percent of the surface soil lost
- 3 - 75 percent to 100 percent of the surface soil lost or up to 25 percent of the B horizon lost
- 4 - 25 percent to 50 percent of the B horizon lost

GULLY EROSION

- 7 - Occasional shallow gullies
- 8 - Occasional gullies uncrossable by farm machinery
- 8 - Shallow gullies less than 100 feet apart laterally or more than 3 per acre
- 8 - Uncrossable gullies less than 100 feet apart laterally or more than 3 per acre

WIND EROSION

- P - Up to 25 percent of surface soil removed
- R - 25 percent to 75 percent of surface soil removed
- S - 75 percent to 100 percent of surface soil removed

WIND DEPOSITS

- F - Accumulations 0 inches to 6 inches deep, level
- H - Accumulations 6 inches to 12 inches deep, level
- K - Accumulations 6 inches to 12 inches deep, hummocky
- — — Line accumulations too narrow to include within boundaries

MISCELLANEOUS

- W - Normal erosion
- O - No accelerated erosion
- O - Undifferentiated erosion (farmsteads, urban areas)

LIGHT TO HEAVY TEXTURED SOIL WITH MODERATELY HEAVY TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIALS

- 27 - Madras sandy loam
- 31c - Deschutes sandy loam
- 28 - Madras loam

LIGHT TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER LOOSE COARSE MATERIALS

- 16 - Metolius sandy loam
- 47 - Deschutes loamy coarse sand
- 46 - Deschutes loamy sand
- 49 - Deschutes coarse sandy loam
- 55 - Deschutes loamy sand over loess

LIGHT TO HEAVY TEXTURED SOIL WITH HEAVY TEXTURED SUBSOILS OVER LIME HARDPAN

- 30 - Lamont loam
- 31 - Lamont sandy clay loam
- 32 - Lamont loamy sandy clay loam
- 33 - Lamont stony loam
- 34 - Lamont stony clay loam, shallow phase
- 84 - Lamont loam, shallow phase

LIGHT TEXTURED SOIL WITH DEEP, LIGHT TEXTURED SUBSOIL OVER PERMEABLE MATERIALS

- 42 - Metolius sandy loam
- 60 - Metolius sandy loam
- 81 - Metolius fine sandy loam

LAND USE
Reproduced in gray

Cultivated land, annual and perennial crops such as grain, hay, vegetables, clover, and grasses



Range land - Land formerly cultivated but now abandoned, in annual grasses, crevices, wheat grasses, or brush



Range land - Annual or perennial grasses or sagebrush



Woodland - Juniper or Douglas pine



TIdle land



Farmsteads and urban areas



SLOPE

	DOMINANT PERCENT	DOMINANT PERCENT	
A	0 to 3	D	13 to 20
B	4 to 7	E	21 to 35
C	8 to 12	F	36 and over

GEOGRAPHIC SYMBOLS

WORKS AND STRUCTURES

- Roads: Hard-surfaced
- Semihard-surfaced
- Dirt (good motor)
- Dirt (poor motor or private)
- Bridge
- Culvert
- Ford
- Railroads - Single track

WORKS AND STRUCTURES

- Railroads - Abandoned
- Bridge
- Grade crossing
- Railroad under
- Railroad over
- Tunnel
- Building in general
- Church
- School

WORKS AND STRUCTURES

- Tanks
- Power line
- Telephone line
- Pipe line
- Cemeteries
- Dams
- Gravel pit
- Mine, quarry

BOUNDARIES, MARKS, AND MONUMENTS

- County
- Township
- Section
- City
- Survey boundary
- Skinny areas
- Rock outcrops
- Escarpment

DRAINAGE (in blue)

- Perennial streams
- Intermittent streams
- Canals or ditches
- Canal tunnel
- Water tanks
- Ponds, reservoirs
- Springs
- Sinks
- Marsh

USE DIAGRAM ONLY TO OBTAIN NUMERICAL VALUES.
TO DETERMINE MAGNETIC NORTH LINE, CONNECT THE
PIVOT POINT "P" ON THE SOUTH EDGE OF THE MAP
WITH THE ARROW AS SHOWN ON THE DEGREE
SCALE AT THE NORTH EDGE OF THE MAP.

Approximate Mean Declination, 1945
Annual Magnetic Change 1.30° West
Base from U.S.G.S. quadrangles. Revisions to base
and conservation survey compiled by Soil Conservation
Service from aerial photographs. Lambert projection.
600' foot grid based upon Oregon system (North Zone)
of plane coordinates with last three digits of grid numbers
omitted. Polyconic projection indicated by marginal ticks.

Magnetic North

21°

P

Approximate Mean Declination, 1945

Annual Magnetic Change 1.30° West

Base from U.S.G.S. quadrangles. Revisions to base

and conservation survey compiled by Soil Conservation

Service from aerial photographs. Lambert projection.

600' foot grid based upon Oregon system (North Zone)

of plane coordinates with last three digits of grid numbers

omitted. Polyconic projection indicated by marginal ticks.

USE DIAGRAM ONLY TO OBTAIN NUMERICAL VALUES.

TO DETERMINE MAGNETIC NORTH LINE, CONNECT THE

PIVOT POINT "P" ON THE SOUTH EDGE OF THE MAP

WITH THE ARROW AS SHOWN ON THE DEGREE

SCALE AT THE NORTH EDGE OF THE MAP.

Approximate Mean Declination, 1945

Annual Magnetic Change 1.30° West

Base from U.S.G.S. quadrangles. Revisions to base

and conservation survey compiled by Soil Conservation

Service from aerial photographs. Lambert projection.

600' foot grid based upon Oregon system (North Zone)

of plane coordinates with last three digits of grid numbers

omitted. Polyconic projection indicated by marginal ticks.

Magnetic North

21°

P

Approximate Mean Declination, 1945

Annual Magnetic Change 1.30° West

Base from U.S.G.S. quadrangles. Revisions to base

and conservation survey compiled by Soil Conservation

Service from aerial photographs. Lambert projection.

600' foot grid based upon Oregon system (North Zone)

of plane coordinates with last three digits of grid numbers

omitted. Polyconic projection indicated by marginal ticks.

USE DIAGRAM ONLY TO OBTAIN NUMERICAL VALUES.

TO DETERMINE MAGNETIC NORTH LINE, CONNECT THE

PIVOT POINT "P" ON THE SOUTH EDGE OF THE MAP

WITH THE ARROW AS SHOWN ON THE DEGREE

SCALE AT THE NORTH EDGE OF THE MAP.

Approximate Mean Declination, 1945

Annual Magnetic Change 1.30° West

Base from U.S.G.S. quadrangles. Revisions to base

and conservation survey compiled by Soil Conservation

Service from aerial photographs. Lambert projection.

600' foot grid based upon Oregon system (North Zone)

of plane coordinates with last three digits of grid numbers

omitted. Polyconic projection indicated by marginal ticks.

Magnetic North

21°

P

Approximate Mean Declination, 1945

Annual Magnetic Change 1.30° West

Base from U.S.G.S. quadrangles. Revisions to base

and conservation survey compiled by Soil Conservation

Service from aerial photographs. Lambert projection.

600' foot grid based upon Oregon system (North Zone)

of plane coordinates with last three digits of grid numbers

omitted. Polyconic projection indicated by marginal ticks.

Magnetic North

21°

P

Approximate Mean Declination, 1945

Annual Magnetic Change 1.30° West

Base from U.S.G.S. quadrangles. Revisions to base

and conservation survey compiled by Soil Conservation

Service from aerial photographs. Lambert projection.

600' foot grid based upon Oregon system (North Zone)

of plane coordinates with last three digits of grid numbers

omitted. Polyconic projection indicated by marginal ticks.

Magnetic North

21°

P

Approx

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

SUITABLE FOR OCCASIONAL
CULTIVATION

NOT SUITABLE FOR CULTIVATION

NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE

I-Nearly level, deep, permeable soils having no special limitations in use.

II-Nearly level, moderately deep, permeable soils having minor limitations in use.

III-Moderately deep soils with stone, slope or texture limitations.

IV-Shallow, droughty or moderately sloping soils limited to pasture use.

V-Sloping, very stony lands suited for range, having minor conservation needs.

VI-Slope, very stony lands suited for range, having major conservation needs.

VII-Very steep, stony or droughty lands; essentially non-productive.

DESCHUTES IRRIGATION PROJECT
Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

27C2R

27-Soil type, Madras sandy loam. C- Slope, 8 percent to 12 percent.
2- Sheet erosion, 25 percent to 75 percent lost. R-Wind erosion, 25 percent to 75 percent removed by wind.

SOILS

LIGHT AND COARSE TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIAL

- 2 - Deschutes sandy loam, shallow phase.
- 3 - Deschutes sandy loam.
- 43 - Era sandy loam.
- L3 - Deschutes loamy sand.
- 4 - Deschutes sandy loam, deep phase.
- 5 - Deschutes stony sandy loam.
- 19 - Deschutes stony loam.
- S43 - Era stony sandy loam.

LIGHT AND MEDIUM TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER MODERATELY CONSOLIDATED MATERIAL.

- 10 - Madras sandy loam, shallow phase.
- 10c - Deschutes sandy loam, shallow phase.
- 12 - Madras sandy loam, deep phase.
- 12c - Deschutes sandy loam, deep phase.
- 13 - Madras stony loam.
- 13c - Deschutes stony sandy loam.
- 90 - Deschutes stony sandy loam.
- 26 - Deschutes loamy sand.
- 9c - Deschutes loamy sand.
- 24 - Deschutes loamy sand.

EROSION

SHEET EROSION

- 1- Less than 25 percent of the surface soil lost
- 2- 25 percent to 75 percent of the surface soil lost
- 3- 75 percent to 100 percent of the surface soil lost or up to 25 percent of the B horizon lost
- 4- 25 percent to 50 percent of the B horizon lost

GULLY EROSION

- 7 - Occasional shallow gullies
- (7) - Occasional gullies uncrossable by farm machinery
- 8 - Shallow gullies less than 100 feet apart laterally or more than 3 per acre
- (8) - Uncrossable gullies less than 100 feet apart laterally or more than 3 per acre

WIND EROSION

- P- Up to 25 percent of surface soil removed
- R- 25 percent to 75 percent of surface soil removed
- S- 75 percent to 100 percent of surface soil removed

WIND DEPOSITS

- F- Accumulations 0 inches to 6 inches deep, level
- H- Accumulations 6 inches to 12 inches deep, level
- K- Accumulations 6 inches to 12 inches deep, hummocky
- — — — Line accumulations too narrow to include within boundaries

MISCELLANEOUS

- W- Normal erosion
- O- No accelerated erosion
- (O)- Undifferentiated erosion (farmsteads, urban areas)

SOILS

LIGHT TO HEAVY TEXTURED SOIL WITH MODERATELY HEAVY TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIALS;

- 27 - Madras sandy loam.
- 11c - Deschutes sandy loam.
- 25 - Deschutes sandy loam.
- 28 - Madras loam.

LIGHT TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER LOOSE, COARSE MATERIALS.

- 16 - Metolius sandy loam.
- 47 - Deschutes loamy coarse sand.
- 46 - Deschutes loamy sand.
- 49 - Deschutes coarse sandy loam.
- 65 - Deschutes loamy sand over riverwash

LIGHT TO HEAVY TEXTURED SOILS WITH HEAVY TEXTURED SUBSOILS OVER MIXED MODERATELY CONSOLIDATED MATERIALS

- 30 - Lamonta loam.
- 31 - Lamonta sandy clay loam.
- 32 - Lamonta stony sandy clay loam.
- 33 - Lamonta stony loam.
- 34 - Lamonta sandy clay loam, shallow phase.
- 84 - Lamonta loam, shallow phase.

LIGHT TO HEAVY TEXTURED SOILS WITH HEAVY TEXTURED SUBSOILS OVER LIME HARDPAN.

- 39 - Madras loam.
- 40 - Madras sandy loam.
- 68 - Madras stony loam.
- 85 - Madras clay loam.

LIGHT TEXTURED SOIL WITH DEEP, LIGHT TEXTURED SUBSOIL OVER PERMEABLE MATERIALS.

- 42 - Metolius sandy loam.
- 60 - Metolius sandy loam.
- 61 - Metolius fine sandy loam.

LIGHT TO HEAVY TEXTURED SOIL WITH HEAVY TEXTURED SUBSOILS OVER LIME HARDPAN.

- 35 - Agency sandy loam.
- 37 - Agency gravelly loam.
- 70 - Gem loam.
- 36 - Agency loam.
- 63 - Agency stony loam.
- 71 - Gem clay loam.
- 73 - Gem clay loam, shallow phase.

LIGHT TO HEAVY TEXTURED SOILS WITH HEAVY TEXTURED SUBSOILS MODERATELY CONSOLIDATED MATERIALS.

- 74 - Redmond loam.
- 75 - Redmond sandy loam.
- 75d - Redmond sandy loam, deep phase.
- 76 - Redmond clay loam.

MISCELLANEOUS SOILS.

- 100 - Rough broken land.
- 200 - Rough stony land.
- RW - Riverwash
- 91 - Volcanic ash.
- 1 - Scabland.

LAND USE
Reproduced in gray

Cultivated land, annual and perennial crops such as grain, row crops, alfalfa, clover and grasses



Range land. Land formerly cultivated but now abandoned, in annual grasses, crested wheat grasses, or browse



Woodland. Juniper or Ponderosa pine



Idle land



Farmstead and urban area



SLOPE

	DOMINANT PERCENT	DOMINANT PERCENT
A	0 to 3	13 to 20
B	4 to 7	21 to 35
C	8 to 12	36 and over

Survey boundary

Stony areas

Dams

Gravel pit

Mine, quarry

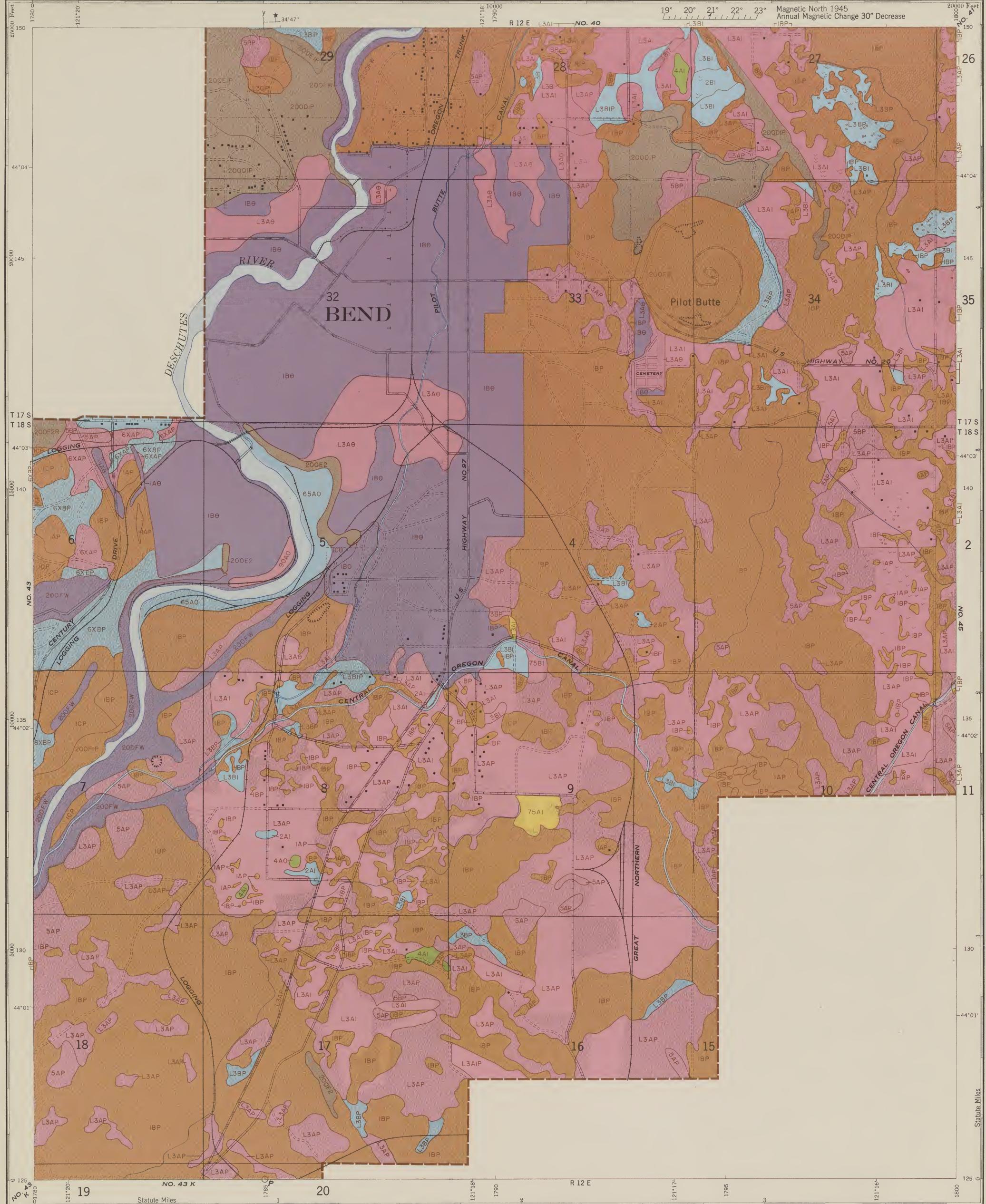
Escarpment

CONSERVATION SURVEY DATA (in brown)

Rock outcrops

Stony areas

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

SUITABLE FOR OCCASIONAL
CULTIVATION

NOT SUITABLE FOR CULTIVATION

NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE

I-Nearly level, deep, permeable soils having no special limitations in use.

II-Nearly level, moderately deep, permeable soils having minor limitations in use.

III-Moderately deep soils with stone, slope or texture limitations.

IV-Shallow, droughty or moderately sloping soils limited to pasture use.

V-Sloping, very stony lands suited for range, having minor conservation needs.

VI-Sloping, very stony lands suited for range, having major conservation needs.

VII-Very steep, stony or droughty lands; essentially non-productive.

SOIL CONSERVATION SERVICE, WASHINGTON, D. C.
1516 JULY 1947

DESCHUTES IRRIGATION PROJECT

Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

27G2R
1- Madras sandy loam, C-Slope, 5 percent to 12 percent.
2- Sheet erosion, 25 percent to 75 percent lost. R-Wind erosion, 25 percent to 75 percent removed by wind.

SOILS

LIGHT AND COARSE TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIAL

- 2 - Deschutes sandy loam, shallow phase
 - 3 - Deschutes sandy loam
 - 43 - Era sandy loam
 - 4 - Deschutes loamy loam, thin phase
 - 5 - Deschutes loamy loam
 - 19 - Deschutes loamy loam
 - S43 - Era stony sandy loam
- LIGHT AND MEDIUM TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER MODERATELY CONSOLIDATED MATERIAL**
- 10 - Madras sandy loam, shallow phase
 - 10c - Deschutes sandy loam, shallow phase
 - 12 - Madras loamy loam, deep phase
 - 12c - Deschutes loamy loam, deep phase
 - 13 - Madras loamy loam
 - 13c - Deschutes stony sandy loam
 - 90 - Deschutes stony sandy loam
 - 26 - Deschutes loamy sand
 - 9c - Deschutes loamy sand
 - 24 - Deschutes loamy sand

EROSION

SHEET EROSION

- 1- Less than 25 percent of the surface soil lost
- 2- 25 percent to 75 percent of the surface soil lost
- 3- 75 percent to 100 percent of the surface soil lost, or up to 25 percent of the B horizon lost
- 4- 25 percent to 50 percent of the B horizon lost

GULLY EROSION

- 7 - Occasional shallow gullies
- ⑦ - Occasional gullies uncrossable by farm machinery
- 8- Shallow gullies less than 100 feet apart laterally or more than 3 per acre
- ⑧ - Uncrossable gullies less than 100 feet apart laterally or more than 3 per acre

WIND EROSION

- P- Up to 25 percent of surface soil removed
- R- 25 percent to 75 percent of surface soil removed
- S- 75 percent to 100 percent of surface soil removed

WIND DEPOSITS

- F- Accumulations 0 inches to 6 inches deep, level
- H- Accumulations 6 inches to 12 inches deep, level
- K- Accumulations 6 inches to 12 inches deep, hummocky
- — — Line accumulations too narrow to include within boundaries

MISCELLANEOUS

- W- Normal erosion
- O- No accelerated erosion
- E- Undifferentiated erosion (farmsteads, open areas)

EXPLANATION OF SYMBOL

LIGHT TO HEAVY TEXTURED SOIL WITH MODERATELY TO HEAVY TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIALS

- 35 - Agency sandy loam
- 37 - Agency gravelly loam
- 70 - Elm loam
- 36 - Agency loam
- 63 - Agency loamy loam
- 71 - Elm clay loam
- 73 - Elm clay loam, shallow phase

LIGHT TO HEAVY TEXTURED SOILS WITH HEAVY TEXTURED SUBSOILS OVER LIME HARDPAN

- 39 - Madras loam
- 40 - Madras loamy loam
- 68 - Hawley stony loam
- 85 - Madras clay loam

LIGHT TEXTURED SOIL WITH DEEP, LIGHT TEXTURED SUBSOIL OVER PERMÉABLE MATERIALS

- 42 - Metolius sandy loam
- 60 - Metolius loamy loam
- 61 - Metolius fine sandy loam

62 - Melville sandy loam

92 - Melville loamy sand

6X - Laddow sandy loam

POORLY DRAINED, LIGHT TEXTURED SURFACE SOIL WITH HEAVY TEXTURED SUBSOIL OVER BASALT OR MIXED DISCONSOLIDATED MATERIALS

- 51 - Elm clay loam

- 52 - Elm loamy loam

LIGHT TO HEAVY TEXTURED SOIL WITH HEAVY TEXTURED SUBSOILS MODERATELY CONSOLIDATED MATERIALS

- 74 - Redmond loam
- 75 - Redmond sandy loam
- 75d - Redmond loamy loam, deep, lime
- 76 - Redmond clay loam

MISCELLANEOUS SOILS

- 100 - Rough broken land
- 200 - Rough land
- RW - River wash
- 90 - Volcanic ash
- L - Scabland

LAND USE

Reproduced in gray

Cultivated land, annual and perennial crops such as grain, row crops, alfalfa, clover and grasses



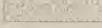
Rangeland - Land formerly cultivated but now abandoned in annual grasses, crested wheat grasses, or hayseeds



Rangeland - Annual or perennial grasses or sagebrush



Woodland - Juniper or Ponderosa pine



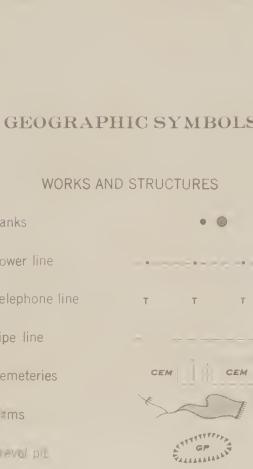
100-600

Farmfield and orchard area



SLOPE

	DOMINANT PERCENT	DOMINANT PERCENT	
A	0 to 3	D	13 to 20
B	4 to 7	E	21 to 35
C	8 to 12	F	36 and over



GEOGRAPHIC SYMBOLS

WORKS AND STRUCTURES

- Roads- Hard-surfaced
- Semihard- surfaced
- Dirt (good motor)
- Dirt (poor motor or private)
- Bridge
- Culvert
- Ford
- Railroads - Single track

WORKS AND STRUCTURES

- Railroads - Abandoned
- Bridge
- Grade crossing
- Railroad under
- Railroad over
- Tunnel
- Buildings in general
- Church
- School

WORKS AND STRUCTURES

- Tanks
- Power line
- Telephone line
- Pipe line
- Cemeteries
- Dams
- Gravel pit
- Mine, quarry

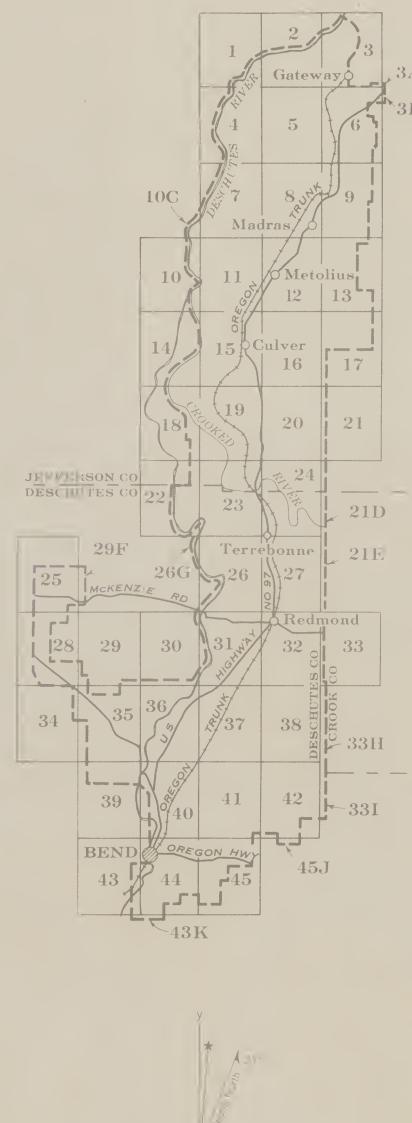
BOUNDARIES, MARKS, AND MONUMENTS

- County
- Township
- Section
- City
- CONSERVATION SURVEY DATA (in brown)
- Survey boundary
- Bluff areas
- Rock outcrops
- Escarpment

DRAINAGE (in blue)

- Perennial streams
- Intermittent streams
- Canal or ditch
- Canal tunnel
- Water tanks
- Ponds, reservoirs
- Springs
- Marsh

INDEX



USE DIAGRAM ONLY TO OBTAIN NUMERICAL VALUES TO DETERMINE MAGNETIC NORTH LINE. CONNECT THE PIVOT POINT 'P' ON THE SOUTH EDGE OF THE MAP WITH THE ARROW AS SHOWN ON THE DEGREE SCALE AT THE NORTH EDGE OF THE MAP.

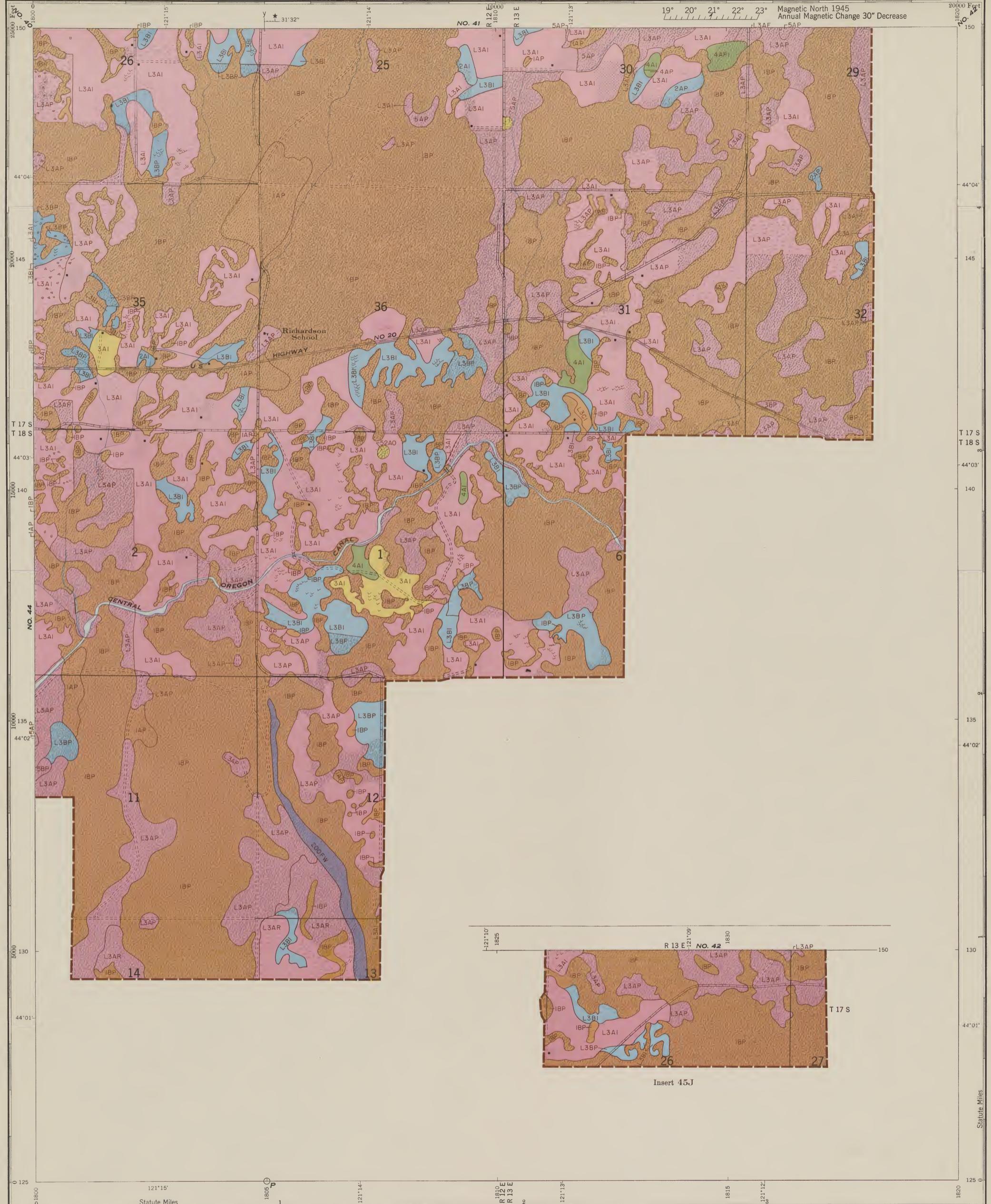
From U.S. Geological Survey, Revisions to Map and conservation survey compiled by Soil Conservation Service from aerial photographs. Lambert projection.

Map grid based upon Grid system (North Zone).

Map plane coordinates with last three digits of grid numbers omitted. Marginal erasures indicated by marginal ticks.

Approximate Mean Elevation 1,540 feet above Mean Sea Level.

OREGON
CLASSES OF LAND ACCORDING TO CAPABILITY
IRRIGATION PRESUMED FEASIBLE



SUITABLE FOR CULTIVATION

SUITABLE FOR OCCASIONAL
CULTIVATION

NOT SUITABLE FOR CULTIVATION

NOT SUITABLE FOR CULTIVATION,
RANGE OR SIMILAR USE

I-Nearly level, deep, permeable soils having no special limitations in use.

II-Nearly level, moderately deep, permeable soils having minor limitations in use.

III-Moderately deep soils with stone, slope or texture limitations.

IV-Shallow, droughty or moderately sloping soils limited to pasture use.

V-Sloping, very stony lands suited for range, having minor conservation needs.

VII-Steep, very stony lands suited for range, having major conservation needs.

VIII-Very steep, stony or droughty lands, essentially non-productive.

DESCHUTES IRRIGATION PROJECT

Scale 1:15,840

LEGEND

EXPLANATION OF SYMBOL

2702R
 1- Deschutes sandy loam, shallow phase
 2- Sheet erosion, 25 percent to 75 percent lost.
 R- Wind erosion, 25 percent to 75 percent removed by wind.

SOILS

LIGHT AND COARSE TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIAL
 2- Deschutes sandy loam, shallow phase
 3- Deschutes sandy loam
 43- Era sandy loam
 L3- Deschutes loamy sand
 4- Deschutes sandy loam, deep phase
 5- Deschutes loamy loam
 19- Deschutes loamy loam
 S43- Era loamy sandy loam

LIGHT AND MEDIUM TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER MODERATELY CONSOLIDATED MATERIAL
 10- Madras sandy loam, shallow phase
 11c- Deschutes loamy loam, shallow phase
 12- Madras sandy loam, deep phase
 12c- Deschutes sandy loam, deep phase
 J3- Madras loamy sandy loam
 L3c- Deschutes loamy loam
 50- Deschutes loamy sandy loam
 26- Deschutes loamy sand
 9c- Deschutes loamy sand
 24- Deschutes loamy sand

27- Medford sandy loam
 L4c- Deschutes sandy loam
 25- Deschutes sandy loam
 28- Madras loam

LIGHT TEXTURED SOIL WITH LIGHT TEXTURED SUBSOILS OVER DENSE COARSE MATERIALS
 16- Metolius sandy loam
 47- Deschutes loamy clay loam
 46- Deschutes loamy loam
 45- Deschutes loamy sandy loam
 66- Deschutes loamy loam over riverwash

LIGHT TO HEAVY TEXTURED SOILS WITH HEAVY TEXTURED SUBSOILS OVER MOVED MATERIALS / INSOLIDATED MATERIALS
 30- Lamont loam
 31- Lamont sandy clay loam
 32- Lamont loamy clay loam
 33- Lamont loamy loam
 34- Lamont loamy clay loam, shallow phase
 84- Lamont loam, shallow phase

LIGHT TO HEAVY TEXTURED SOIL WITH MODERATELY HEAVY TEXTURED SUBSOILS OVER BASALT OR SIMILAR MATERIALS
 35- Agency sandy loam
 37- Agency gravelly loam
 70- Gert loam
 36- Agency loam
 63- Agency loamy loam
 71- Lam clay loam
 73- Lam clay loam, shallow phase

LIGHT TO HEAVY TEXTURED SOIL WITH HEAVY TEXTURED SUBSOILS OVER LIME CONSOLIDATED MATERIALS
 32- Madras loam
 40- Madras loamy loam
 62- Madras loamy loam
 85- Madras clay loam

LIGHT TEXTURED SOIL WITH DEEP, LIGHT TEXTURED SUBSOIL OVER PERMEABLE MATERIALS
 42- Metolius sandy loam
 60- Metolius loamy loam
 61- Metolius loamy sandy loam

52- Metolius sandy loam
 92- Metolius loamy sand
 9X- Laird loamy loam

POORLY DRAINED, LIGHT TEXTURED SURFACE SOIL WITH HEAVY TEXTURED SUBSOIL OVER BASALT OR MIXED CONSOLIDATED MATERIALS
 51- Odin clay loam
 52- Odin sandy loam

LIGHT TO HEAVY TEXTURED SOIL WITH HEAVY TEXTURED SUBSOILS MODERATELY CONSOLIDATED MATERIALS
 74- Redmond loam
 75- Redmond loamy loam
 78d- Redmond sandy loam, deep phase
 76- Redmond clay loam

MISCELLANEOUS SOILS
 10A- Rough rocky land
 200- Rough loamy loam
 RW- Riverwash
 31- Volcanic ash
 1- Scaffland

EROSION

SHEET EROSION

- 1- Less than 25 percent of the surface soil lost
- 2- 25 percent to 75 percent of the surface soil lost
- 3- 75 percent to 100 percent of the surface soil lost or up to 25 percent of the B horizon lost
- 4- 25 percent to 50 percent of the B horizon lost

GULLY EROSION

- 7- Occasional shallow gullies
- ⑦- Occasional gullies uncrossable by farm machinery
- 8- Shallow gullies less than 100 feet laterally or more than 3 per acre
- ⑧- Uncrossable gullies less than 100 feet apart laterally or more than 3 per acre

WIND EROSION

- P- Up to 25 percent of surface soil removed
- R- 25 percent to 75 percent of surface soil removed
- S- 75 percent to 100 percent of surface soil removed

WIND DEPOSITS

- F- Accumulations 0 inches to 6 inches deep, level
- H- Accumulations 6 inches to 12 inches deep, level
- K- Accumulations 6 inches to 12 inches deep, hummocky
- — — Line accumulations too narrow to include within boundaries

MISCELLANEOUS

- W- Normal erosion
- O- No accelerated erosion
- E- Undifferentiated erosion (farmsteads, urban areas)

LAND USE

Reproduced in gray

Cultivated land, annual and perennial crops such as grain, row crops, alfalfa, hay and grasses



Rangeland, land formerly cultivated but now abandoned in annual grasses, crested wheatgrass, or fescues



Rangeland, annual or perennial grasses or sagebrush



Woodland, Juniper or Ponderosa pine



Idle land



Farmfield and orchard area

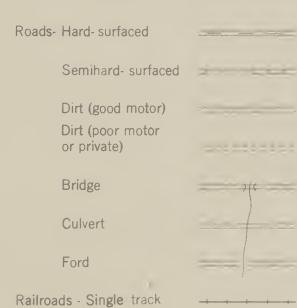


SLOPE

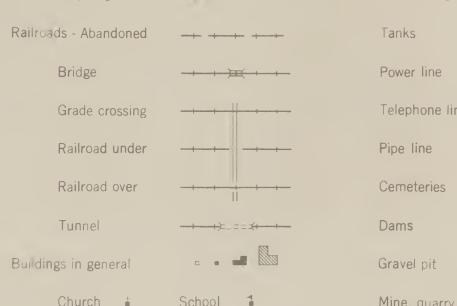
	DOMINANT PERCENT		DOMINANT PERCENT
A	0 to 3	D	13 to 20
B	4 to 7	E	21 to 35
C	8 to 12	F	36 and over

GEOGRAPHIC SYMBOLS

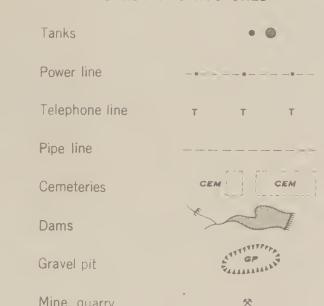
WORKS AND STRUCTURES



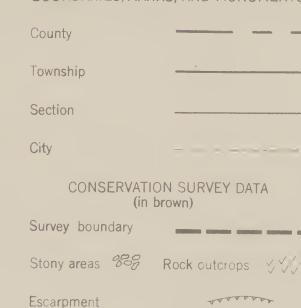
WORKS AND STRUCTURES



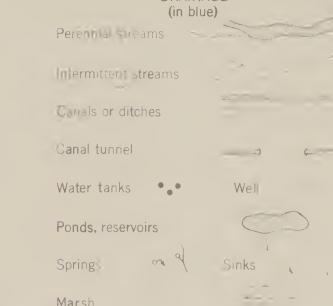
WORKS AND STRUCTURES



BOUNDARIES, MARKS, AND MONUMENTS



DRAINAGE (in blue)



USE DIAGRAM ONLY TO OBTAIN NUMERICAL VALUES TO DETERMINE MAGNETIC NORTH LINE. CONNECT THE PIVOT POINT "P" ON THE SOUTH EDGE OF THE MAP WITH THE ARROW AS SHOWN ON THE DEGREE SCALE AT THE NORTH EDGE OF THE MAP.

Base from U.S.G.S. quadrangles. Revisions to base and conservation survey compiled by Soil Conservation Service from aerial photographs. Lambert projection. 50' foot grid based upon Oregon system (North Zone) of plane coordinates with last three digits of grid omitted. Polyconic projection indicated by marginal ticks.

Adapted from Mean Contouring, 1945 Annual Magnetometer Survey, U.S. Army.

Map by W.M. Smith, 1945.

Scale 1:15,840.

